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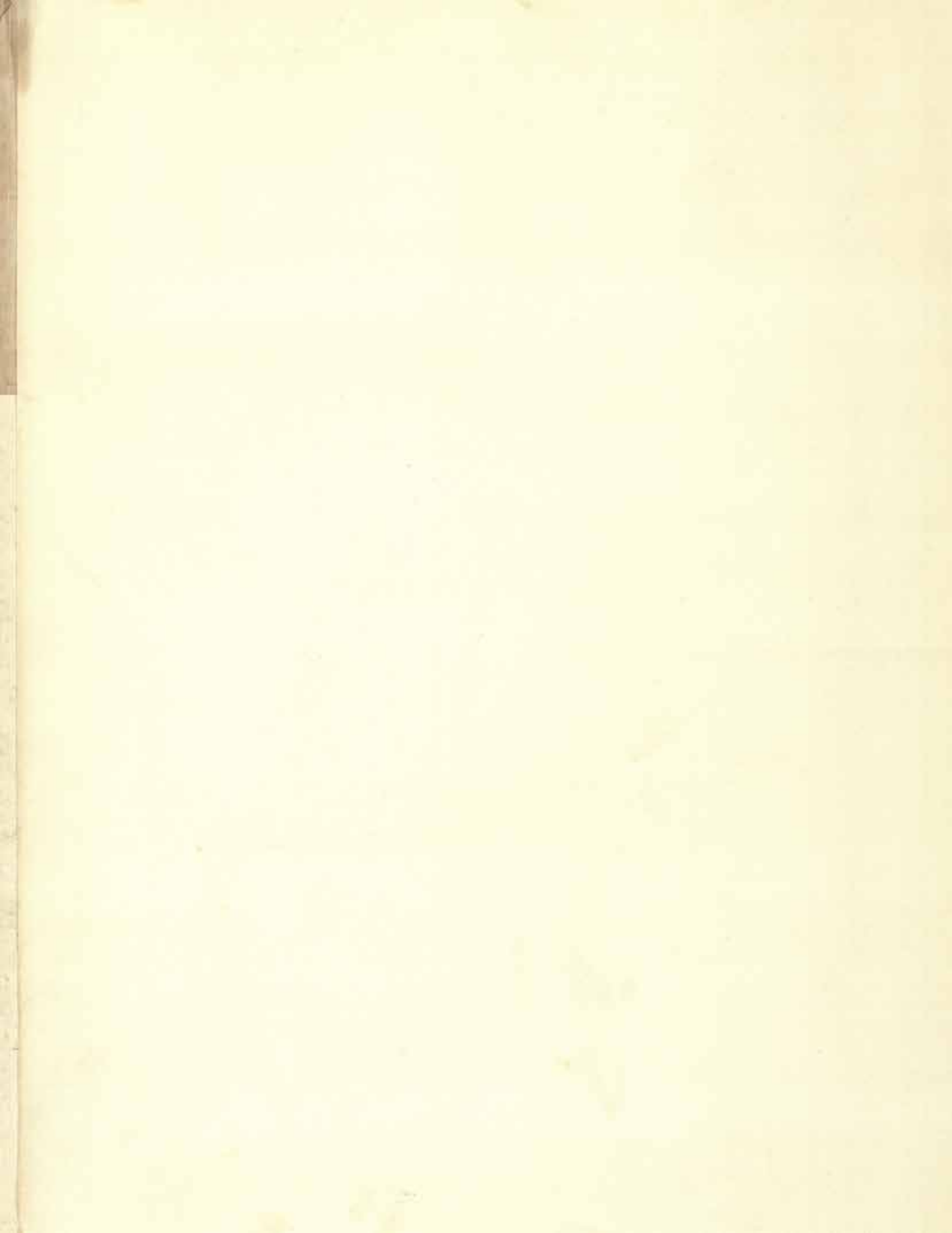
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CHĀRSADA



The main cutting (Ch. I) down the side of the Bala Hisar

CHĀRSADA

A METROPOLIS OF THE NORTH-WEST FRONTIER

36958

BEING A REPORT ON THE EXCAVATIONS OF 1958

BY

SIR MORTIMER WHEELER, C.I.E.

*Sometime Director General of Archaeology in India
and Adviser in Archaeology to the Government of Pakistan*

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INTRODUCTION

WHEN the old Archaeological Survey of India was reconstituted in 1902, its first Director General was a young Cambridge man who had recently worked in Greece. In his early travels in the subcontinent John Marshall was at once struck by the manifest importance of the great mound which rises from the Peshāwar plain near Chārsada. There was something about it which reminded him, perhaps a little nostalgically, of the Athenian Acropolis; anyway, it was clearly a site which required investigation and accordingly, early in the following year, he turned his new department on to it and dug a series of holes in its summit. The results were not very revealing. The task was in fact too formidable a one for prentice hands, nor was the immense man-made mound of Chārsada at all comparable with the solid rock of the Acropolis. The enterprise was not renewed.

But the 'High Fort' of Chārsada remained a challenge to inquiry, and, in the four-year programme of excavation which (as one of Marshall's successors) I drew up for the department in 1944, Chārsada occupied the final place on the list. Work was due to begin there in the latter part of 1947. In August of that year momentous political events intervened.

The new Pakistan Department of Archaeology, however, and the Ministry of Education under which it operated had not forgotten the project, and in 1958 honoured and delighted me by an invitation to take up the suspended task. The work was undertaken in November and December of that year and, although merely a preliminary reconnaissance, was sufficient to indicate something of the scope and potentiality of the site. That it so far succeeded is due to the active aid of many friends. The Educational Adviser at that time (Dr. I. H. Zuberi), the Archaeological Adviser (Mr. Raoul Curiel), and Mr. Mumtaz Hasan hospitably prepared the way for us; and a special debt of gratitude is due to Dr. Fazal Ahmad Khan, Director of Archaeology, and his colleagues for infinite trouble in practical arrangements on the spot. My old friend and foreman of other days, Sadar Din Khan, rejoined me, with Abdus Salaam as chief draftsman and S. A. Siddiqui as photographer. A succession of admirable Pakistani research students was an important addition to the team. From England I brought two young Cambridge archaeologists, Mr. David Stronach (now Director of the British Institute of Persian Studies in Tehran) and Dr. Roy Hodson, both experienced already in field techniques and of incalculable value as supervisors and trainers. From her Baluchistan home, Mrs. S. Schofield came to help with the photography. And at the time of going to press Mr. S. M. Sharif, as Secretary of the Ministry of Education and Scientific Research, has assisted readily in all matters relating to publication.

Two other debts must be acknowledged. First, the Pakistan Air Force co-operated with the most courteous readiness and in fact its air-photographs contributed one of the most significant discoveries of the season. Secondly, the British Academy, through its Stein-Arnold Fund, has been glad to associate itself with the Pakistan Government both in the fieldwork and in its subsequent presentation.

SUMMARY

The ancient mounds near Chārsada, in the midst of the Peshāwar plain, have been firmly identified with Pushkalāvati or Peukelaōtis ('Lotus City'), an ancient capital of Gandhāra. Trial-excavations carried out in 1903 in the highest of them, the Bālā Hīṣār or High Fort, 60-70 ft. high, and in certain lower mounds in the vicinity were indeterminate, and a renewed attempt was made in 1958 to recover something of the buried history of the site. A complete section was cut down the surviving face of the Bālā Hīṣār and the mound was found to represent intensive occupation from the sixth century, i.e. from the Achaemenid occupation of Gandhāra, to the second or first century B.C., with much reduced occupation extending into Muslim times. Its early history thus runs parallel to that of Taxila (Bhir Mound) in the Punjab, and the assertion of the Ramayana that Taxila and Pushkalāvati were founded at the same time accords with the archaeological evidence.

To the east of the Bālā Hīṣār and formerly delimiting it, a line of rampart and ditch was unearthed and ascribed to the recorded siege of the town by the troops of Alexander the Great in 327 B.C. These defences had followed the western bank of a river which was subsequently diverted, its bed being filled up with deposits mostly of the third and second century B.C. To the east of the river-bed the town spread during those centuries, and accumulative rebuildings constituted a long and ragged mound up to 20 ft. in height. A house, built of mud-brick and representing five successive phases of construction, was partially excavated. In the area explored there was no evidence of occupation after the second half of the second century B.C., and two wells were filled up with material of that period.

The next phase was discovered by air-photography three furlongs to the north-north-east of the Bālā Hīṣār. There a long, low mound known as *Shaikhān* has been dug into by local villagers uprooting buried brick walls for reuse. From the air, these untidy quarries, roughly following as they do the former building-lines, reveal a considerable part of a town plan in negative, with regularly laid-out buildings, chessboard streets, and the wreck of a large (presumably Buddhist) stupa or shrine. Furthermore, two hoards of Indo-Greek coins of the second or first century B.C. are recorded to have been found there by the plunderers. There can be no doubt that, like the second city of Taxila (Sirkap), *Shaikhān* represents a rebuilding of Pushkalāvati within those two centuries on a fresh, clean site and on a regular Graeco-Parthian plan.

Other extensive mounds in the vicinity include later phases of the city, not yet explored. But the general outline of the early story of the site is beginning to emerge. In principle it closely resembles that of Taxila. Like Taxila, it was a local capital, with its own regional modes and crafts. Like Taxila, it was absorbed into the Achaemenid Empire whilst retaining a measure of local control. Like Taxila, it stood upon the arterial route from Persia and Afghanistan into the subcontinent; it lay in the path of Alexander the Great, and in Graeco-Roman times carried an appreciable East-West trade. Again like Taxila, in those times it was moved to a new but adjacent site and laid out substantially on a Western grid-plan. No doubt (though this is at present guesswork) it was, like Taxila, later moved by the Kushans to one of the other sites in the vicinity where relics of the Kushāṇa period can be picked up.

As a city, Pushkalāvati may be supposed to have perished at the hands of the White Huns who devastated the region in the fifth century A.D. Thereafter, the Bālā Hīṣār, by reason of its commanding height, served occasionally to carry a fort or police-station until the eighteenth or nineteenth century.

THE SCENE AND ITS HISTORY

CHĀRSADA is one of a group of small towns beside the multiple courses of the Swāt river, 3 miles from its present junction with the Kābul river, and 20 miles north-east of Peshāwar in West Pakistan. The small towns are eight in number, whence the local name of Hashtnagar ('Eight Towns') for the group as a whole. They sprawl beside dusty highways and endless Muslim cemeteries in a sea of sugar-cane amongst which, on their margin, rides a great sandy eminence like a battleship at anchor. This eminence is the Bālā Ḥiṣār or High Fort, rising 60 ft. or more above the adjacent level. Amidst the flat alluvium of the Peshāwar plain, broken though this be by many heaped-up evidences of secular or Buddhistic occupation, the Bālā Ḥiṣār is without rival of its kind within the range of the old North-West Frontier Province.

But the High Fort does not stand alone. East of it (pl. V and figs. 1 and 3), between its crumbling crags and the Swāt or Jindai river, lies a straggling series of mounds of about half its height. Immediately north of these the river is fed by a rivulet from the north-west, the Ṣāmboṛ, which, as excavation has now shown, ran at one time as a river down the shallow valley between them and the Bālā Ḥiṣār. Our trenches, cut 15 ft. downwards to the surface of its sandy bed, showed that water ceased to flow here not later than the third century B.C., when it was diverted by accumulations of sand and refuse to something like its present course.

Eastward again of these subsidiary mounds, across the Swāt river, a vast expanse of *tell* or *dheri* indicates many phases of ancient occupation. It extends from Mīrābād in the south, under the village of Rajār, for more than a mile north-eastwards to the Mīrziārat where (Sir) John Marshall dug in 1903 and found unintelligible walls of various materials. To this almost continuous group of artificial hills the name *Shahr-i-Nāpursān* has been applied, with explanatory legends of no consequence.¹ More important in the present context is yet another site, west of Mīrziārat and between the Swāt and Ṣāmboṛ rivers, where the mound of *Shaikhān*, half a mile in length, has yielded remarkable evidence which will be described below.

In the broken sides of all these mounds can be seen structures of baked or, more generally, unbaked brick and lines of pebble foundations with occasional walls of boulders and slats in the Gandhāra fashion. Briefly, an area nearly 2 miles square is massively piled with vestiges of habitation amidst well-watered farmlands where the seasonal routine includes, and must always have included, the arrival of picturesque nomads from beyond the mountains in November, and their not-unwelcome departure in the spring. And over all towers the majestic Bālā Ḥiṣār.

¹ H. B. W. Garrick in *Archaeological Survey of India Report* (hereafter abbreviated *A.S.R.*), xix, 1881-2 (Calcutta, 1885), 107 ff.

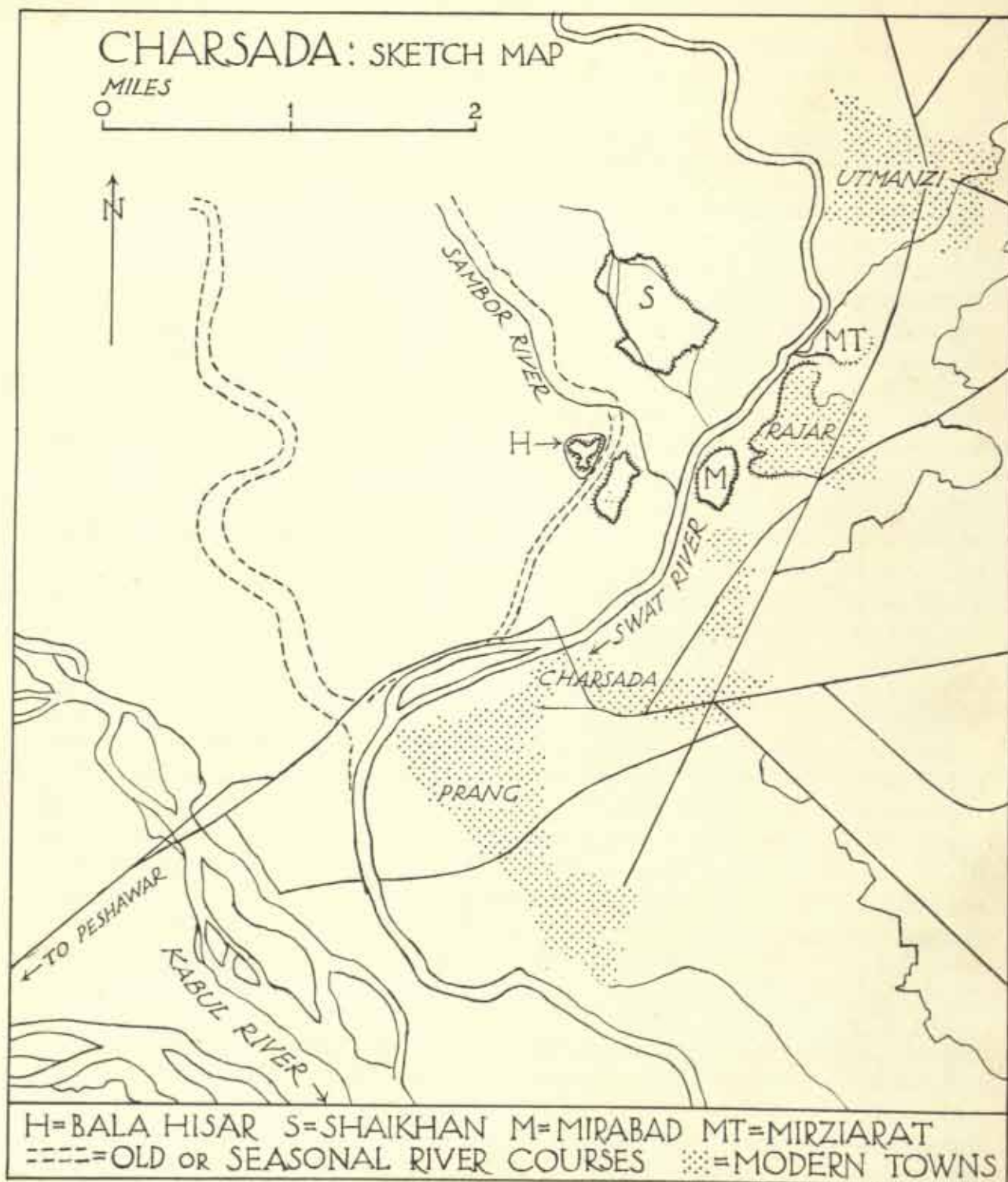


FIG. 1. The Chārsada region.

In 1863 General (Sir) Alexander Cunningham, with his almost unerring eye for historical topography, identified the site as that of Pushkalāvati, an ancient capital of Gandhāra,¹ which was at one time roughly co-terminous with the plain of Peshāwar but later seems to have included lands east of the Indus. That identification is undisputed. Pushkalāvati, the 'City of Lotuses', of which the Prakrit form was Pukkalaoti, was the Sanskrit name from which Arrian in the second century A.D. derived the Peukelaiētis, Peukelaōtis, or Peukela of his accounts of Alexander the Great and India, drawn mainly from sources of the fourth century B.C.;² and Arrian's 'land of Peukelaōtis' may be equated with the nuclear province of Gandhāra which his authorities (as preserved) do not name. In 327 B.C. the city withstood a division of Alexander's troops under Hephaistion, drawn from three brigades, half the companion cavalry and the whole of the mercenary cavalry, for no less than thirty days, and Alexander himself came to receive its surrender. It must therefore at that time have been a redoubtable place with substantial fortifications which were in fact identified during the present work. Thereafter it received a Macedonian garrison and virtually passed out of history.

Prior to the advent of Alexander we have no mention of the city, but Herodotus (iii. 91) includes the Gandarioi in the seventh province or satrapy of the Persian Empire, and Darius catalogues Gadara (or Gandhāra) amongst his eastern satrapies on the Behistūn inscription of c. 518 B.C. On the same inscription India (territory bordering upon the Indus) is omitted, though it occurs shortly afterwards at Persepolis and on Darius's tomb at Naqsh-i-Rustam (c. 486 B.C.); whilst Herodotus (iii. 94) records it as the last or twentieth, and also as the richest, of the satrapies. It may be inferred that Gandhāra west of the Indus was absorbed earlier, in the reign of Cyrus (558–530 B.C.) or in the first years of Darius;³ that the territorial organization adopted two centuries later by Alexander was then laid down; and that the capital Peukela or Pushkalāvati then, if not before, came into being. It has been conjectured, without much proof, that Pushkalāvati may have remained the local metropolis until A.D. 100 or thereabouts, when the opening of the Khyber Pass by the Kushāns as an arterial route alternative to the Kābul valley may have led to its decline and the advancement of Peshāwar, with Kanishka's great stupa, now represented by Shāh-jī-kī-Ḍheri, as its symbol.⁴

This possibility involves the geographical aspects of the matter. Why was Pushkalāvati placed on the spot where its dusty mounds bear sufficient witness to a long and prosperous existence? The reasons are not far to seek (fig. 1). The site stands centrally in the wide and teeming plain of Gandhāra; it lies near, and may well have been formerly at, the junction of the rivers Swāt and Kābul which, through their many channels, fertilize the surrounding lands and, from this point downwards, are jointly capable of carrying

¹ *A.S.R.* ii, 1863–4, 89.

² Arrian, *Anabasis*, iv. 22, 7; *Indica*, i. 8; Strabo, *Geog.* xv. 1, 27, uses the form Peukolaītis; Pliny, *Nat. Hist.* vi, 62, has Peucolais. See also W. W. Tarn, *The Greeks in Bactria and India* (2nd ed., Cambridge, 1951), pp. 237–8.

³ For the evidence of activity by Cyrus on the

frontier of the subcontinent, see *Camb. Hist. of India*, i. 329–33. Short of certainty, it is consistent with his absorption of the Peshāwar plain into the Persian Empire.

⁴ For an interesting and ingenious discussion of the possible vicissitudes of early Peshāwar, see Sir Olaf Caroe, *The Pathans* (London, 1958), pp. 32–35.

sizeable river craft; and, above all, it commanded the great trade-route from inner Asia to the Indo-Pakistan cities and coasts. That trade-route (fig. 2) left the ancient east west axis of Asian commerce at Bactra in Afghan Turkestan and, piercing the Hindu Kush, found its way, in pre-Khyber days, down the Kābul valley towards the Indus valley and the

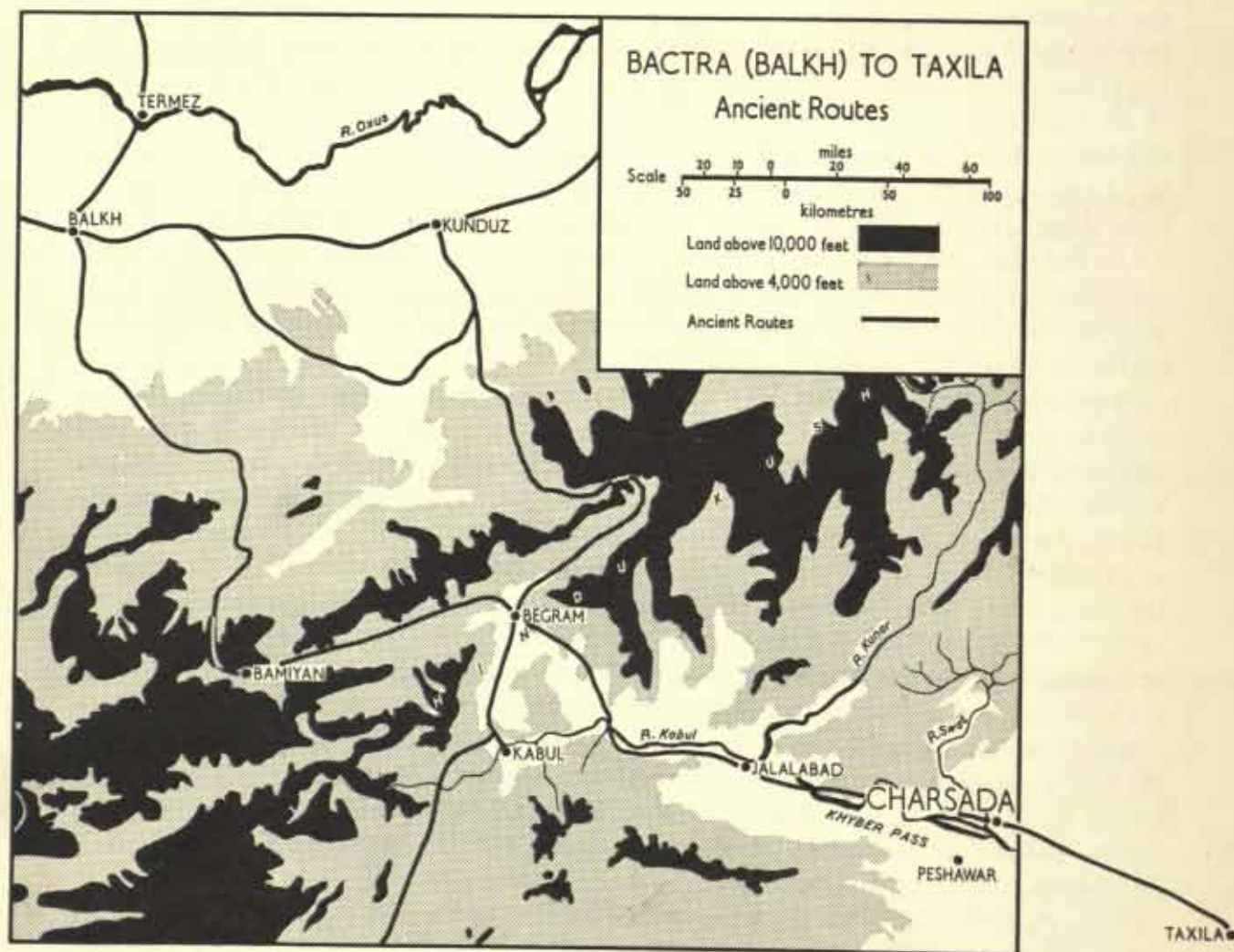


FIG. 2. Map showing Chārsada in relation to Taxila, Begram, and Balkh (Bactra).

plains of India.¹ Astride it, from the latter part of the sixth century B.C., the capitals of principalities and petty kingdoms, backed by the overriding power of the Great King of Persia, thrived as protectors and revenue-collectors. Such were Begram, the ancient Kāpisa, 50 miles north of Kābul; Taxila in the Punjab, 40 miles beyond the Indus; and Pushkalāvati between the two: all caravan-cities in the true sense of the term.

In anticipation, this last point may be briefly enlarged. From the decline of the pre-historic Indus Civilization of the third and second millennia until the advent of the

¹ A. Foucher and E. Bazin-Foucher, *La Vieille Route de l'Inde de Bactres à Taxila*, i and ii (Mém. de la délég. archéologique française en Afghanistan, Paris, 1942 and 1947).

Achaemenid kings in the middle of the sixth century B.C., it may be inferred and assumed that these regions were the battlefields of jealous local régimes; a condition which in the time of Alexander still subsisted in some measure east of the Indus. To the worst abuses of this inter-regional rivalry the strong arm of the Persian Empire set a term. Safe communications were amongst the Imperial blessings, and long-distance trafficking became at last secure and profitable. Commercial cities such as those just mentioned were the economic response, whether newly founded or newly enlarged. There is in fact no hint that Begram or Chārsada or Taxila existed appreciably before the extension of Persian power across the Hindu Kush in early Achaemenid times. Admittedly our knowledge of all these sites is at present excessively incomplete, but such is the consistent tenor of the evidence.

For the centuries immediately following Alexander the Great, such information as we possess about Pushkalāvati is based upon the quicksands of Indo-Greek numismatics. This is not the context for reploughing that shifty terrain. Suffice it that sometime in the earlier half of the second century B.C. Graeco-Bactrian interest and enterprise were directed by circumstances southwards across the Hindu Kush, and that about the middle of the century the great Menander ruled from the Hindu Kush to the central Punjab. His familiar coins are found in impressive numbers at Begram north of Kābul, in the vicinity of Chārsada and at Taxila, and beyond the hills in Bajaur and Swāt. How much of this wide territory, and more, he acquired and how much he inherited, and from whom, are matters for argument, but not here. It may be that to the time of his predecessor (Heliocles?) should be ascribed the famous gold coin that bears on its obverse the 'goddess of Pushkalāvati' (so named in Kharoshthī), wearing a mural crown and seemingly holding in her right hand a lotus as tutelary deity of the 'City of Lotuses', and on its reverse a humped bull (plainly described in Greek and Kharoshthī as 'bull') such as was, it seems, specially though not exclusively associated with Pushkalāvati.¹ Doubtless throughout this period the city maintained its status as a provincial capital with a mint of its own and a limited range of superficial Hellenizing contacts.

After the death of Menander, perhaps about 130 B.C., the region was ruled in unsettled fashion by Indo-Greeks of uncertain interrelationship and confused chronology;² amongst them, a king or sub-king with the name Peukolaos which no doubt bore the same territorial affinity to Peukela or Pushkalāvati as did that of the king Taxiles to his Taxila in the time of Alexander. Something of a new coherence was seemingly introduced into the political chaos of the age when, in the first half (probably the first quarter) of the first century B.C., the Śakas or Scythians, who had overrun Bactria in the course of widespread folk-movement from central Asia, in turn penetrated the mountain-barriers and, in the person of king Maues, assumed an ill-defined hegemony over the north-west and the Punjab. For the Chārsada-Pushkalāvati of this or the immediately succeeding

¹ E. J. Rapson in *Camb. Hist. of India*, i. 557. For a variant interpretation of the coin (which is in the British Museum), see P. L. Gupta in the *Journ. of the Numismatic Soc. of India*, xx (Banaras, 1958), 68-70. It is at least certain that the figure represents a goddess

related in some fashion to Pushkalāvati. ✓

² For a recent critical review of the whole phase, see A. K. Narain, *The Indo-Greeks* (Oxford, 1957). The phase remains riven by crevasses, to be crossed only by the very adventurous.

'Parthian' period we have only one document, a remarkable air-photograph which will be discussed later (p. 16).

During the so-called 'Buddhist' or Kushāṇa period, which may here be regarded as extending from the second to the fourth or fifth centuries A.D., the main occupation of Chārsada lay outside the Bālā Hīṣār. In our key-section, Ch. I, only one shallow layer (14) contained unmistakable Buddhist remains. To this evidence must be added that observed in 1903 by Marshall who, in the spirit of another age, blandly admits that 'in none of the trial pits could any certain evidence as to the date of the minor finds be obtained from stratification', although the pits were about 20 ft. deep. On the western side of the top of the mound (as it was in 1903), however, at a depth of 5 ft. he struck the top of a wall 4 ft. 4 in. wide 'built of the regular diaper patterned masonry commonly found in the Buddhist buildings of this district. It was still standing to a height of 12 feet 6 inches.' No doubt this was in fact a Kushāṇa structure built in a technique which was to become more familiar to Marshall at Taxila; but the nonsense which the excavator proceeded to write about 'fortifications' and a 'gateway constructed in such a manner as to compel an assailant to expose his flank to the defenders of the wall' must be written off as immature fantasy. What Marshall did in fact find cannot now be determined; the cliff hereabouts has fallen away since his time; but coupled with the slightness of the vestiges of the 'Buddhist' period in our section Ch. I it may be guessed (and this is no more than a guess) that the remains were those of a monastery rather than of a lay settlement. Incidentally the depth of the foot of the diapered wall from the present surface—about 17½ ft., presumably including footings below the contemporary ground-level—equates nearly enough with the depth of our 'Buddhist' or 'Gandhāra' layer 14—some 14 ft.—from the rather lower summit of Ch. I.

Sometime during the early centuries of the present era, Pushkalāvati lost its leadership to Peshāwar (above, p. 3). When, about A.D. 630, the traveller Hiuen Tsang (or Yuan Chwang) came this way, he found that Peshāwar had a perimeter of 40 *li*, whereas *Pu-sa-ka-lo-fa-ti* or Pushkalāvati had one of a mere 14 or 15 *li*. Nevertheless, he was able to describe Pushkalāvati as still 'well peopled';¹ the province had evidently recovered in a remarkable degree from the ravages of the White Huns who, more than a century earlier, had scoured it with the uncompromising brutality of a Chingiz Khan or a Timur.² The precise location of Pushkalāvati in Hiuen Tsang's time is at present unknown. The mounds of *Shahr-i-Nāpursān* may well contain the secret.

After the seventh century we have no hint of the history of the Chārsada mounds. The silence is probably in large measure significant. Marshall observes that Albārūnī, in describing the route from Kanauj to Ghaznī at the beginning of the eleventh century, speaks of Waihind, the capital of Kandhār (Gandhāra) west of the river Sindh (Indus),

¹ S. Beal, *Si-yu-ki: Buddhist Records of the Western World* (London, 1884), i. 109; T. Watters, *On Yuan Chwang's Travels in India* (London, 1904), i. 214.

² Beal, *op. cit.* i. 171. The Hun king is credited with the extermination of the royal family of Gandhāra, the slaughter of more than 90,000 of the population, and

the destruction of 1,600 Buddhist monasteries. It is scarcely surprising that when he died 'the air was darkened and the earth quaked and fierce winds rushed forth as he went down to the Hell of unceasing torment'.

and also of Peshāwar, but makes no mention of Pushkalāvati although it lay on the main road between these two places. Nevertheless, if only after Albārūnī's time, it is clear enough that the eminence of the Bālā Ḥiṣār attracted intermittent occupation in the Middle Ages and later, either as a temporary fortress or as a refuge for villagers. H. B. W. Garrick¹ states from an alleged first-hand witness that about 1800 the Bālā Ḥiṣār 'was even then in ruins', though temporary timber buildings on it were inhabited. The timber from these was 'carried to Peshāwar shortly before the British annexation'. And in 1882 he attests that 'this fortress, from almost every aspect, presents the appearance of a great earthen barrow, for, with the exception of a small portion facing west, all the stonework of the outer walls has fallen away, thus leaving the ramparts [*sic*], even in those few places where they are higher than the generality of the mount, mere bastions of earth'.² In other words, the mound, though then considerably more expansive, presented much the same appearance as today. Garrick adds that 'nothing is known in the tradition of the people concerning the Bālā Ḥiṣār prior to the early days of Gori rule [twelfth century] in India, when, it is said, a sirdār of the Ali Khal Afghans took the fort from "Abdād" called also "the Kafir", or Kāt king'. On the other hand, 'in the struggle between the later Durrānīs and Sikhs [eighteenth century], this fort is said to have been utilized and, from its height and commanding position, to have offered a brave resistance, though almost in ruins'.

None of this suggests historically any substantial occupation of the mound, other than on a temporary and opportunist basis, since the twelfth century at the latest. On the other hand, the abundance of surface-pottery, undated but manifestly Islamic, and a notable piece of structural evidence not previously observed are witnesses of a more substantial kind to a phase which cannot at present be fixed within the broad brackets of twelfth to seventeenth or eighteenth century. The structural evidence we owe to the Pakistan Air Force, which photographed the Bālā Ḥiṣār at our request and thus revealed for the first time, amidst the tumult of heaps and hollows on its summit, the rectangular outlines of a substantial enclosure of the latest period of the mound (pl. V and fig. 4). The outlines are those of the rough robber-trenches from which villagers have systematically abstracted building-materials, doubtless of baked brick. To the pedestrian walking amidst them, the high and untidy heaps and recurrent hollows make no readily apparent plan but, as co-ordinated by air-observation, they produce an intelligible pattern which was not unnaturally overlooked by earlier surveyors of the ground.

What that pattern implies is less certain. The width of the spoil-trenches indicates thick walls, and a small fort, of which the main structure was something like 250 ft. by 200 ft., is an obvious interpretation. In the middle of the enclosure are the tumbled pits dug in 1903, when Marshall found here what he describes as a shallow brick tank 20 ft. square 'near the surface'. At each corner was a diagonal step; in the centre was a supply pipe and at one of the corners was an outlet. 'Some 14 feet below the tank, and 10 feet to

¹ *A.S.R.* xix, 1881-2, 96-110.

² These 'outer walls' and 'bastions of earth' are very doubtful quantities. Both Garrick and Marshall after him seem to have been ready to mistake spoil-heaps and the deep pebble footings of interior mud-

brick buildings, as exposed in the crumbling faces of the mound, for fortifications. The young Marshall in particular was haunted by recent memories of the fortified Acropolis of Athens, in which he found a wholly misleading analogy to the Bālā Ḥiṣār. ✓

its west, appeared an earlier building' also of baked brick. It was 'pierced with three windows', and 'at its southern extremity is a chamber with arched entrance' flanked by pilasters. The structure was built of brickbats derived from earlier buildings and was plastered. Too little was uncovered to make sense, but Marshall regarded all these remains as Islamic. No attempt was made during the present work to investigate or extend his evidence. Coins of Muḥammad Ghūrī and others were found by Marshall but of course prove nothing as to the date of the buildings.

II

EXPLORATION AT CHĀRSADA

REFERENCE has been made to Marshall's inconclusive work in 1903—the enterprise, be it emphasized, of a brilliant but wholly inexperienced and untrained young man in the days when scientific digging was virtually unknown outside Cranborne Chase. Slight excavations, unworthy of the name, had already been made on the Bālā Ḥiṣār and at Mirziārat in 1882 by a company of Bengal sappers and miners under a Lieutenant Martin, R.E., on behalf of the Punjab Government, but the whole work had lasted only twelve days.¹ On the heels of the sappers, H. B. W. Garrick made a survey of the top of the Bālā Ḥiṣār for the Archaeological Survey of India, but his own account of the mound shows that his plan is largely conjecture. In brief, no one had studied the group of mounds analytically or produced a section of any one of them.

In 1947 the old Archaeological Survey of undivided India planned to carry out a systematic excavation of the Bālā Ḥiṣār and its environs, but Partition intervened. Eleven years later, the Pakistan Government took up the project once more, with the present results.

¹ H. B. W. Garrick, as cited.

III

PLAN OF THE PRESENT OPERATIONS

IN the short time of seven weeks, little more could be attempted than the construction of a provisional chronology for the growth of the great mound which dominates the site. For this formidable purpose the digging of trial-pits on the summit (the method formerly adopted) is of course a useless procedure, and there is no substitute for the laborious cutting of a wide trench in steep steps down the cliff-face, continued at the foot by a further sounding below the present ground-level until the natural soil is reached. A spot was accordingly chosen where, on the eastern side, a comparison between Marshall's plan of 1903 and the present state of the mound shows that extensive falls have occurred since that date, evidently accelerated by the *sondages* of 1903 (fig. 4). This choice ensured that our trial-trench would give us a complete internal section between the top of the mound and the original ground-level vertically beneath it. Our trench (Ch. I and III), 30 ft. wide at the top and more than 60 ft. deep in the aggregate, was a formidable enterprise and its successful completion within the time-limit is a tribute to the fine skill and energy of Mr. David Stronach, the site-supervisor, and his Pakistani assistants.

But this major effort was not in itself enough. What was the original extent and function of the Bālā Hīṣār, now a mere broken nucleus? Was it built as an artificial acropolis in this featureless landscape? Or was it merely the gradual product of secular growth of a kind normal on Asian town-sites where mud or mud-brick is the traditional material? The problem of general extent presented no great difficulty. A shallow valley east of the Bālā Hīṣār has already been mentioned. Had it originally underlain the city until weather and the local villagers (who have long found these mounds a productive top-dressing for their fields, pl. IX) had cleared the site? If so, we at least had here a convenient access to the lower levels, devoid of top-hamper. A large pit, Ch. II, was therefore at the outset sunk into this under the direction of Dr. F. R. Hodson, who found the old river-bed mentioned above (p. 1) beneath 15 ft. of structureless accumulation dating back mostly to the third and second centuries B.C. It was clear that the great mound had never reached this point.

We had therefore already established a topographical bracket for the ancient eastern margin of the Bālā Hīṣār; it must have lain somewhere between our sites Ch. I and Ch. II. And not only that. The recorded fact that it took the trained troops of Alexander the Great a month to reduce the city implied that in his time it was fortified; the hypothesis was as certain as hypothesis could be, therefore, that the original margin of the high mound would be marked by defences. And so it proved. A line of intermediate trenches (Ch. III) between Ch. I and Ch. II revealed, at a distance of 230 ft. from the present foot of the high cliff, a defensive ditch which was subsequently traced for 320 yds. north and south

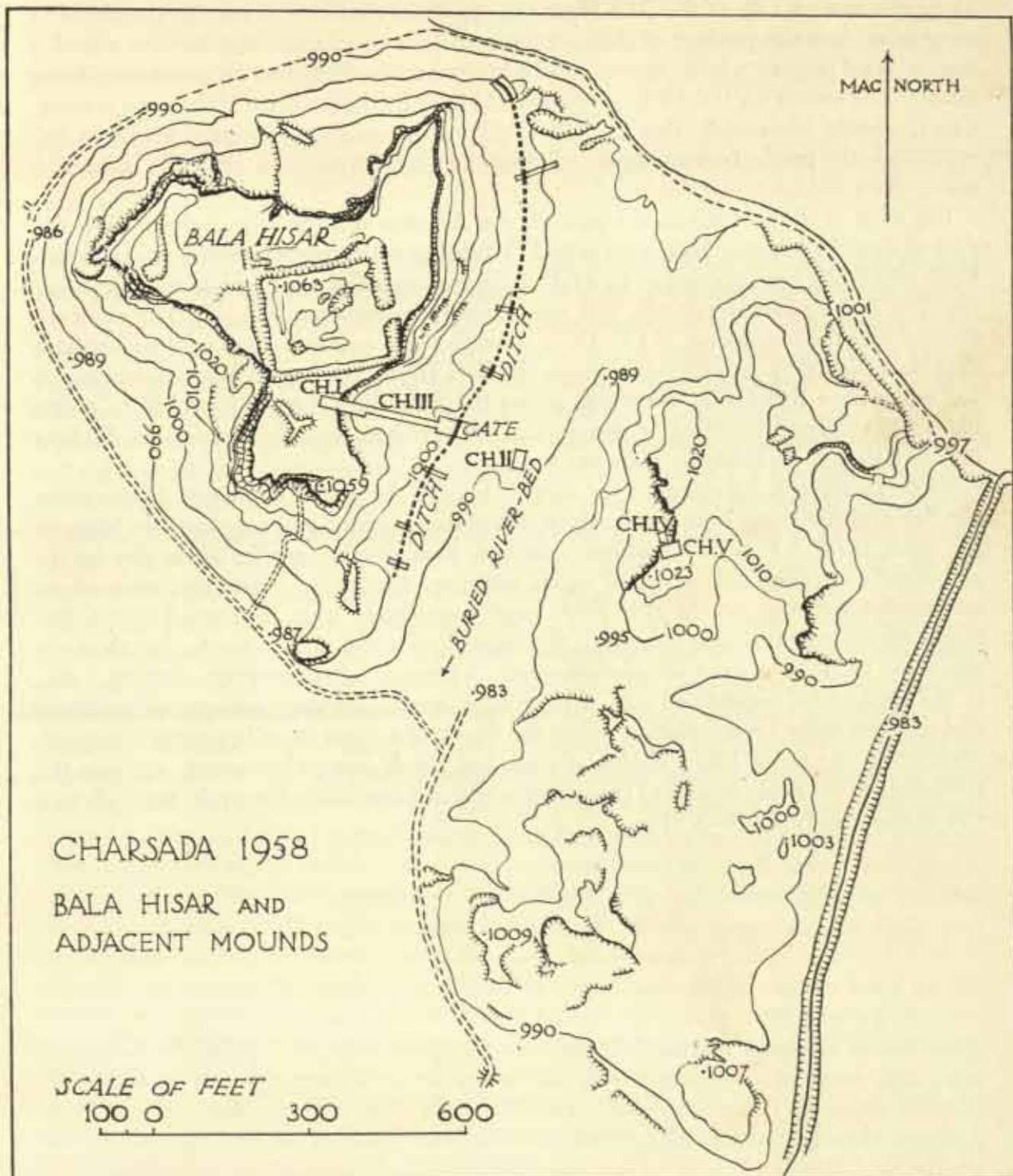


FIG. 3. The Balā Hīṣār, line of defensive ditch, buried river-bed, and adjacent mounds. (Based upon a survey prepared by the Survey of Pakistan. Contours in feet above sea-level at Karachi.)

along the eastern side of the Bālā Ḥiṣār (fig. 3). That discovery, I may be permitted to emphasize, was the product of deliberate search, not of chance; but fortune added a timber-lined postern which, in our relatively narrow trenches, was an unmerited *bonne bouche*. The search for the ditch, supplemented later by the evidence of the great cutting, Ch. I, showed incidentally that the Bālā Ḥiṣār was in origin no designed acropolis but represents the gradual accumulation of floors and structures on a civic site in normal tell or *dheri* fashion.

But what of the mounds across (east of) the defences and the former river? How did they fit into the scheme? Here a pit (Ch. IV) was dug at the foot of a house-wall of mud-brick which had been uncovered by a fall of the encompassing sand and debris; the house itself, of five successive periods, was also partially investigated (Ch. V). The evidence showed that the occupation of Ch. IV-V, though ancient, began at an appreciably later date than that of the original town under the Bālā Ḥiṣār. During the last three centuries B.C. occupation had spread eastwards across the dwindling river-bed, and if, as seems likely, the evidence recovered by us is typical, we have here an early expansion of Peukela or Pushkalāvati, probably in Mauryan times.

Such was the general extent of our digging but not the end of discovery. At this point the Pakistan Air Force took up the story in a remarkable and masterly fashion. Early in the work, the P.A.F. with the utmost readiness took air-photographs of the site for us, and their contribution is essential to an understanding of it. Their revelation of an unrecorded structure on the Bālā Ḥiṣār itself has already been mentioned (p. 7). But it was on the neighbouring mound of Shaikhān, half a mile to the north, that their co-operation yielded the most astonishing result. There the air-photograph showed a part of the layout of a regimented city, with straight streets, regularly assembled buildings, and, in their midst on the highest point, the wreck of a stupa in an imposing courtyard, dominating the scene like a Buddhist cathedral. And, ironically enough, we owe the revelation to the depredations of the villagers who, by uprooting the walls, have left us a city in negative (pls. XV-XVI).

IV

SUMMARY OF RESULTS

Now this plan of Shaikhān is of a kind by no means common in the subcontinent. Regular town-planning had indeed characterized the Indus Valley Civilization of the third millennium but in the succeeding Dark Age the habit seems to have died. It was alien, so far as we know, to medieval India; but it did occur in the first centuries B.C. to A.D. at Taxila, where, on its Sirkap site, the town was rebuilt in just this fashion by its Scytho-Parthian rulers, if not also by their predecessors the Indo-Greeks of the second century B.C. Indeed, the analogy between Shaikhān and Sirkap, both with their chessboard pattern and their emphatic 'cathedrals', is strikingly exact. Consistently, two hoards of Indo-Greek coins of the second and first centuries B.C. have been found at Shaikhān by the villagers.¹ No digging of an orthodox kind has been done there, but in all the circumstances I have no hesitation in accepting Shaikhān as a city—and a major one—of the Sirkap or 'Parthian' period, possibly on an Indo-Greek layout.

With the Taxila analogy in mind, the sequence at Chārsada assumes a reasonable and convincing aspect. The early city, Chārsada I, occupied the site on which succeeding ages gradually reared the high mound, the Bālā Hīṣār, formerly something like twice its present area. The date of the city's foundation needs further definition, but the depth of the strata combined with the fact that iron was familiar to its inhabitants at the time of its construction may be held to indicate a date probably not earlier and certainly not later than the sixth century B.C.² It is here inferred that, at any rate as a city, Pushkalāvati should be associated with the pacification of the region by Cyrus or Darius. By 327 B.C., when Alexander's troops besieged the place, it was encircled by a wall and a ditch, which was filled up shortly after construction (see below). This was followed by the gradual filling of the adjacent river-bed identified in Ch. II. By this time the Bālā Hīṣār had accumulated to a height of some 12–13 ft. above the natural surface.

Shortly afterwards the systematic spread of occupation to the eastern bank of the (former) river is represented by the well-built house which we partially excavated there on sites Ch. IV and V. The house showed five structural phases, of which the first (lowest) was associated with burning. The fourth and fifth phases produced no fewer than eight sherds of the Gangetic 'Northern Black Polished Ware', to which an approximately Mauryan and post-Mauryan date (third to second century B.C.) is provisionally ascribed.

¹ *Num. Chron.*, 5th ser., xx (1940), 123–6.

² There is no good evidence that iron was known to the northern plains of India before the latter part of the sixth century B.C. and it is a fair inference that

the knowledge or exploitation of the metal in the subcontinent accompanied the absorption of the north-western principalities into the Achaemenid Empire at that time. See below, p. 33.

in the present context (p. 41). The associated pottery suggests that the house was first built about the end of the fourth century B.C. and was in disuse by the latter half of the second century B.C. Its abandonment may have been a deliberate act of policy; the two adjacent wells seem to have been filled up at this time with debris of uniform character.

The next main epoch in the city's history, that of Chārsada II, is, as I have indicated, now recognizable on the nearby mound of Shaikhān, with its rigid town-planning. At Taxila (Sirkap), the comparable plan, as revealed by Marshall's excavations and still visible, is of the Scytho-Parthian period, dating from c. 70 B.C. to the latter part of the first century A.D., with a considerable margin of error at the end of the bracket arising from the doubtful chronology of the Kushāṇa kings. Marshall's very limited probing beneath the Scytho-Parthian levels led him to conclude that the main lines of the town (or a part of it) represented by these had been derived from an underlying Indo-Greek city about a century earlier in date. His evidence on this point, though not improbable, is inadequately based, but the matter need not be discussed here. Suffice it to observe that Taxila II in the first centuries B.C. to A.D. was laid out on a chessboard pattern in the Greek tradition, identical with that which can now be recognized also in the air-photograph of Shaikhān. Reference has already been made to the discovery of Indo-Greek coins at Shaikhān (p. 13).

Subject to verification by digging, the sequence at Shaikhān thus reflects the evidence of Sirkap. In the first century B.C., if not somewhat earlier (perhaps as early as the time of Menander), Pushkalāvati was moved by a new dynasty to a new adjacent site, and was there laid out on Western lines without the inherited embarrassments of previous accumulation. Whether we may follow the Taxila (Sirsuk) analogy further and seek yet another Pushkalāvati of the Kushāṇa period on a third site, such as the Shahr-i-Nāpursān mounds are quite capable of supplying, is a problem for future exploration.

Meanwhile, the Bālā Ḥiṣār itself had not been wholly deserted. On the contrary, occupation of some unexplained kind or kinds continued there, though not intensively, in the Buddhist period of the early centuries A.D. and continued, at any rate spasmodically, into the Middle Ages if not later. Foucher suggested that the famous Stupa of the Eye-Gift, commemorating the spot where the Buddha made a gift of his eyes,¹ stood upon the mound, but the suggestion is unwarranted and is in conflict with the evidence of Hiuen Tsang who averred that the stupa was 4 or 5 *li* north of the town//

Maḥmūd of Ghaznī came this way early in the eleventh century, but if the negative evidence of Albārūnī (p. 6) be accepted in a positive sense the place was of no significance at that time. More is perhaps to be said for an occupation by Muḥammad Ghūrī at the end of the following century, but this is still guesswork. As late as the eighteenth century, the Durrānīs may have established a police-post on the High Mound, and this post may have been occupied at second hand by the Sikhs; but the buildings are said at that

¹ Fa-Hien, about A.D. 400, states that, when the Buddha was a Bodhisattva, he gave his eyes for another man in Gandhāra and that a stupa commemorated

the event (J. Legge, *A Record of Buddhist Kingdoms* (Oxford, 1886), p. 31). Hiuen Tsang identified the episode with Pushkalāvati.

time to have been in ruins (p. 7). Until more is known of Muslim pottery in this part of the subcontinent, no certainty as to the ultimate occupation of the Bālā Hīṣār can be achieved.

Briefly, then, if these later impacts be omitted, the story of Pushkalāvati is essentially the story of Taxila. In affirming that the two cities were founded at the same time, the *Rāmāyāṇa*¹ has more semblance of historical authority than is commonly accredited in detail to the Indian epics.

¹ vii. 100, 10.

AIR-PHOTOGRAPH OF SHAIKHĀN

(Pls. XV-XVI)

Six hundred yards to the north-north-east of the Bālā Hīṣār is a low-lying mound known as Shaikhān, extending for half a mile from south-south-east to north-north-west in the angle between the rivers Swāt and Šāmboṛ. A tiny tributary of the latter slices through the western edge of the mound; at the southern end are a few farmhouses; and on their northern fringe the plateau bears a Muslim graveyard. For the rest, as one walks over the site any general comprehension is frustrated by a tumult of heaps and hollows marking the spots whence the local villagers have dug up ancient brick walls for the reuse of their material (pl. XIVB).

At the beginning of our work in November 1958 we invited the Pakistan Air Force to take air-photographs of the whole region, little suspecting what would be produced under the P.A.F.'s skilful ministration. To our astonishment, air-photography integrated the disturbances on Shaikhān into the simple and convincing picture of a civic grid-plan of a remarkably distinctive kind. A series of parallel streets—not less than five can be identified—40 yds. apart divide the site into blocks in which coherent house-plans can be isolated. One street-interval, slightly larger (50 yds.), includes the precinct of a massive circular structure which can only have been a stupa or Buddhist (less probably Jaina) shrine. The stupa stood on a slight rise and, both by situation and by plan, dominated the scene. *But*, like all the other buildings shown on this very notable air-photograph, it is *in negative*. It is represented solely by the spoil-trenches dug by the village plunderers, on the principle of 'find a wall and follow it and pull it out'.

The most consecutively plundered and therefore comprehensible area is at the southern end of the mound, in the immediate vicinity of the modern houses. Farther north, beyond the cemetery, only a few walls here and there have been excoriated, but their alignment fits in perfectly with that of the southern group. It can be said that the whole site was laid out upon a single co-ordinated rectangular plan, with the temple in its midst.

Now regimented planning of this type was not a normal Indian characteristic. True, back in the third millennium the great cities of the Indus Civilization were so planned, but when they vanished in the second millennium they seem to have left no heritage of the art to their successor-cultures.¹ When the first Taxila (on the Bhīr Mound) was

¹ It may be that a grid-plan characterized the fortress-city of Śiśupālgarh in Orissa, built probably by Aśoka after his conquest of the Kalingas about 264 B.C. Such at least is the suggestion of the rigidly square outline of the place and the regular spacing of the numerous

gates. But the street-plan has not yet been recovered. — B. B. Lal in *Ancient India*, no. 5 (Delhi, 1949), pp. 62–105; Wheeler, *Early India and Pakistan* (London, 1959), p. 134.

founded, perhaps at the end of the sixth century B.C., its streets (still partly visible in their later reconstructions) were bent and casual. It is to a subsequent Taxila, the so-called Sirkap, that we have to look for an analogy to our Shaikhān. And there the analogy is a striking one.

That part of the plan of Sirkap which has been revealed by excavation is sufficiently familiar.¹ From each flank of the main street, approximately at intervals of 40 yds., side-streets branch at right-angles, producing a rigid grid-plan. One of the blocks, slightly broader than the rest (47 yds. wide), contains a large temple-precinct enclosing the outline of a stupa. The parallel with Shaikhān could scarcely be more exact.

✓ The date of the Sirkap plan as revealed is of the first centuries B.C. to A.D. and must be ascribed mainly to the Parthian régime there. At one point its excavator, Sir John Marshall, dug deeper and found what he regarded as Indo-Greek levels of the second century B.C. Whether or how far the grid-plan was laid down by these Indo-Greeks and how far it was due rather to the westernizing Parthians who followed them cannot be affirmed on the existing evidence. But in either case there is no doubt that the elements of the planning are derived from the traditions of Greek Asia where classical town-planning had its roots. Equally there can be no doubt that the surprising vestiges on Shaikhān represent the same traditions and the same period. Like Taxila, Pushkalāvati was removed in the second or first century B.C. by the Indo-Greeks or their Parthian successors from the deeply encumbered site upon which it had grown during the preceding centuries to a fresh site whereon the alien principles of orderly planning could be developed without impediment.

Happily, the predatory villagers have not limited their helpful villainies to the uncovering of a town-plan. In so doing, they have brought to light at least two hoards of coins which have a bearing upon the matter. One of the hoards, found in 1940, has been partly described by General H. L. Haughton,² who acquired 21 of the coins and recorded others. He notes 15 of Menander, 2 of Strato with Agathokleia, 3 of Amyntas, 7 of Diomedes, 25 of Philoxenos, 16 of Hermaios, 4 of Hermaios with Kalliope, 7 of Antialkidas, and 2 of Antimachos Nikephoros. The hoard thus covers roughly the period mid-second to mid-first century B.C. and was presumably buried in the latter part of the first century B.C. General Haughton also states that 'another important find of coins was made [at Shaikhān] some 12-15 years ago—Whitehead, I believe, secured a good many of the coins then found'. Implicitly this earlier hoard was also Indo-Greek. The picture of the Shaikhān city as the equivalent of Taxila-Sirkap holds together convincingly.

¹ Plan in *Ancient India*, no. 4 (1948), pl. xxii; *Imperial Frontiers* (London, 1954), pl. xxx.
Marshall, *Taxila*, iii, pl. 10; Wheeler, *Rome beyond the* ² *Num. Chron.*, 5th ser., xx (1940), 123-6.

VI

EXCAVATED SITES, 1958

(i) *Ch. I and IIIA: The Bālā Hīṣār*

(Pls. I, II, VIIb, and VIII-IX)

THESE sites together constitute a complete vertical section down the present eastern face of the Bālā Hīṣār, with an eastward extension at the base. As indicated in fig. 4, this face lies more than 50 ft. behind the margin of the mound as it stood at the time of Marshall's excavations in 1903. During the intervening fifty-five years (as, no doubt, earlier), the mound had been repeatedly weakened at the modern ground-level (see e.g. layer 42 in pl. II, and pl. IX) by incessant undercutting designed to produce falls of the rich occupation-earth, which was then used by the local cultivators as top-dressing. When I first visited the site in 1944 the approach was completely blocked by buffaloes carrying away panniers full of the mound-material quarried for this purpose. The main cleavages at the summit had roughly followed the inner lines of Marshall's cuttings.

The section (pl. II) showed fifty-two layers, labelled 1 to 51a. The lower layers of Ch. I were extended eastwards by Ch. IIIA-K, of which Ch. IIIA is included in pl. II. Except for a deep accumulation of fallen debris comprising layers 1-5 in Ch. IIIA, the successive layers are the gradual accumulation resulting from normal occupation (each layer on the average about 1 ft. in depth) and do not represent the deliberate and unitary construction of a high podium on the lines of the Harappā or Mohenjo-daro citadels. Many of the layers were associated with mud-brick or (later) baked brick walls, though within the restricted width of the cutting (maximum 30 ft. but much less at lower levels) no complete or significant building-plan was recoverable.

An indication of the approximate rate at which the Bālā Hīṣār grew may here be given in anticipation of a more detailed discussion of chronology (p. 33).

At a time when water still flowed down the shallow valley to the east of the mound, the main eastern margin of occupation was marked by the defensive ditch which we found on the river's former western bank. This ditch is assumed to have existed at the time of Hephaistion's siege in 327 B.C. (p. 10). The pottery associated with this early phase extends as high as layer 41 in the mound, i.e. some 13 ft. above the natural surface. The period represented is, on my computation, about two centuries, about 530 to 327 B.C. (p. 34). Almost immediately after construction, the defensive ditch was filled in with material derived largely from a former earthen and mud-brick rampart.

The mound continued to rise and had reached the height of layer 20, i.e. some 36 ft. above the natural surface, when the use of Northern Black Polished Ware and 'Lotus Bowls'

was coming to an end. This brings us with reasonable certainty down to the middle of the second century B.C. or slightly later (see pp. 40 and 43).

Higher still, in level 14, scraps of Gandhāra carving in the typical green schist of the frontier hills occur. By this time the height of the mound above the natural surface had

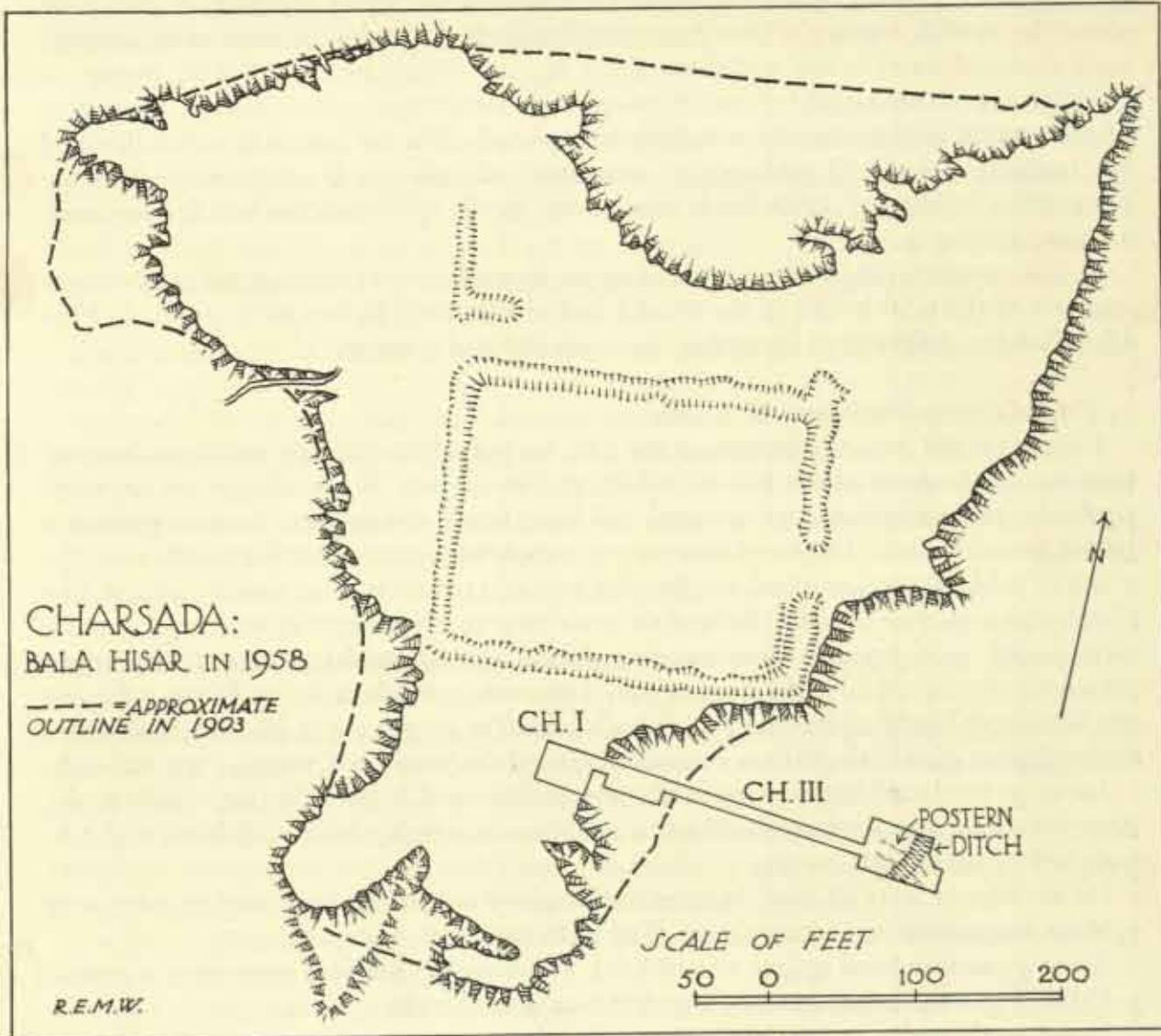


FIG. 4. The Bālā Hīṣār in 1903 and 1958.

risen to 41 ft. The date of this category of Gandhāra art is not closely fixed, but the second to fourth centuries A.D. may be accepted as a broad bracket. Within that bracket the evidence of occupation is here notably slight, certainly on something appreciably less than an urban scale. In conjunction with the fragments of masonry found by Marshall at a similar depth in 1903 (p. 6) it may perhaps indicate the presence of a small Buddhist community.

From level 9 upwards probably, and from level 7 upwards certainly, we are in the Muslim period. The lowest fragment of glazed ware—a stray white sherd—occurs in layer 9, and from layer 7 upwards glazed sherds are common. Glazed ware in fact long antedated the advent of Islam,¹ but the general uniformity of the pottery in layers 1–7 suggests a unitary period to which, on the vague hints offered by history (pp. 6–7), a date in or about the twelfth century is here provisionally ascribed, pending a more exact study of early medieval wares in this and the adjacent regions. It may be later; but the pottery of this phase is too abundant for easy equation with the scrappy and occasional occupation of the summit of the mound attested for later periods alike by historical probability and by 'tradition'. It should probably be associated—though this is not proven—with the rectangular building (a small fort?) represented by the spoil-trenches revealed in recent air-photographs (p. 7).

In this summary time-table attention may be drawn to the evident fact that nearly three-quarters of the total height of the mound had accumulated before the beginning of the Christian era. Subsequent occupation was episodic and scrappy.

The following details may be added.

Layers 51 and 51a, the lowest on the site, were both marked by much evidence of burning, in the form of ash and of red-burnt clay streaks. The conflagration or, more probably, two successive conflagrations had been fierce, but whether local or general is not of course known. The two levels were incompletely demarcated from each other by a line of pebbles which marked the top of a part of 51a in Ch. IIIA, and by a black line of ash which marked the basic floor of the overlying 51. Fragments of mud-brick walling were found upon 51a and were standing during the accumulation of 51. The bricks measured $16 \times 14 \times 3$ in. and $14 \times 12 \times 3$ in. The average width of the walls was 2 ft., and the remaining height $1\frac{1}{2}$ ft. One pair of walls joined at a right-angle, but otherwise there was no hint of plan in the narrow cutting. Sherds of the 'soapy red' ware were numerous.

Layer 50 produced fragmentary indications of two mud-brick walls (not visible on the drawn section), and layer 49 also showed remains of a roughly built mud-brick wall 2 ft. wide with a right-angle corner.

On the base of layer 48 stood another wall-angle of mud-brick built on a foundation of pebbles, sometimes two courses deep. The walls were 3 ft. wide.

Layer 47 accumulated against a mud-brick wall similarly founded upon two courses of pebbles. The mud-bricks measured on the average $12\frac{1}{2} \times 12\frac{1}{2} \times 3\frac{1}{4}$ in.

Layer 45 showed a smooth mud-plaster floor but no clear walling.

Layer 44 contained a fragmentary mud-brick wall which may in fact have begun in layer 45 and have been rebuilt. The remains were on the extreme edge of the cliff and difficult to place. The bricks measured $12-13 \times 12-13 \times 3\frac{1}{2}$ in.

¹ For example, monochrome glazing was familiar to the early Sasanid potters of the middle of the third century A.D. See J. C. Gardin, *Céramiques de Bactres* (Mém. de la délég. arch. française en Afghanistan, tome xv, Paris, 1957), pp. 67 and 95. Also Hanna

Rydh, *Rang Mahal* (Lund, 1959), p. 136, where reference is made to plain green-glazed sherds ascribed to 'about 300 A.D.'. Rang Mahal is in northern Rajasthan, India.

Layers 43 and 42 accumulated against successive mud-brick walls, the earlier (43) built on pebble footings three courses deep. With the wall in 42 was an ash-covered floor.

Layer 41 contained building-debris but no construction. It is notable as the latest layer containing the 'rippled' rims that are characteristic of all the lower levels. In a sense, therefore, it marks the end of the first uniform phase of the site. It seems to equate with the defensive ditch of Ch. IIIJ-K (p. 27).

Here it may be interpolated that layers 1-5 in Ch. IIIA, adjacent to the foot of the main section and shown in pl. II bottom centre and right, are modern falls of mixed material mostly from the uppermost levels of the mound, brought down by systematic undercutting carried out by local cultivators (see pl. IX). They contain, with earlier remains, much pottery of the Islamic period, comparable with that of levels 1-7 at the top of the main section. They have no significance in the structural sequence of the site.

Layer 40 was a thin deposit covering a smoothed yellow floor; no walls appeared in the cutting.

Layer 39 included a fragment of wall-foundation three pebble-courses thick, with traces of mud-brick above. Adjoining the wall was a pebbled floor.

Layer 38 was marked by a hard-packed clay floor without walls but with a circular hearth 2 ft. 4 in. in diameter, and an adjacent pit about a foot in diameter and a foot deep. The layer contained much 'soapy red' pottery of good quality with cordons and corrugations.

Layer 37 showed no structural features but its floor was covered with ash.

Layer 36a included the rebuilding of a mud-brick wall which had begun in 36b and had there been burnt; both original wall and rebuild were based upon large pebble footings. The bricks measured on the average $12 \times 12 \times 4$ in.

Layer 35 contained a mass of pebbles bounded by a fragmentary line of mud-bricks. The overlying layer 34 included a massive collapsed wall of mud-bricks ranging from $11 \times 11 \times 4$ in. to $13\frac{1}{2} \times 13\frac{1}{2} \times 4$ in. and occasionally $16\frac{1}{2} \times 16 \times 4$ in.

Layer 33 contained on the edge of the cliff the pebble foundations of a wall $2\frac{1}{2}$ ft. wide retaining only fragments of the overlying mud-bricks. These were $3\frac{1}{2}$ in. thick. The layer marks the end of the 'soapy red' ware and its associated cordons.

Layer 32 showed remains of a smoothed hard-beaten floor but no walls. A circular hearth was the only feature of layer 31.

Layers 30 and 29 were made up of ashy soil but were devoid of structural features.

Layer 28 showed a yellow beaten floor and, at the back of the cutting, remains of a mud-brick wall above pebble foundations set in stiff clay. The bricks also were 'mortared' with thick bands of clay and retained in part a mud-plaster facing $\frac{1}{4}$ in. thick. The bricks were $13 \times 13 \times 3$ in. This is the lowest (earliest) layer in which 'Tulip Bowls' appear (p. 40).

Layer 27 was largely floored with mud-brick, into part of which a pit (Pit X) had been cut. The pit was then sealed by a renewal of the floor over it. The bricks were $13 \times 13 \times 3-4$ in.

Layers 26 and 25 both lacked structural features, but 26 contained much ash.

Layer 24 contained the stump of a roughly built wall of very fragmentary mud-brick on pebble footings.

Layer 23 accumulated round two mud-brick walls at right-angles to each other, one with and one without large pebble footings. The mud-bricks were normally $12\frac{1}{2}-13\frac{1}{2} \times 12\frac{1}{2}-15 \times 3\frac{1}{2}-4$ in. but smaller bricks only 7-10 in. wide were also used. The walls bore traces of mud-plastering $\frac{1}{2}-1\frac{1}{2}$ in. thick. The floor was of smoothed clay. Layer 22 was based upon a pebble spread which represented merely a reflooring of the same building; it contained the lowest (earliest) 'Lotus Bowls' on the site (p. 40). A notable feature of layer 23 was the inclusion of a few stray fragments of baked brick, all $3-3\frac{1}{4}$ in. thick except one which was $1\frac{1}{4}$ in. thick. These were the earliest baked bricks found on the site; on the chronology here adopted, they should be of the third century B.C. or slightly later. Their uncommon thickness recalls that of bricks from Mauryan sites in India.

Layer 21 was roughly paved with pebbles and fragments of baked brick ($11\frac{3}{4} \times 11\frac{3}{4} \times 3$ in.) and was partly cut by Pit Y (sunk from layer 16) and Pit Z (sunk from layer 19), but itself produced two terracotta figurines of 'Baroque Lady' type (p. 104). The overlying layer 20 yielded a similar figurine. The two layers each contained a sherd of Northern Black Polished Ware and fragments of 'Lotus Bowls'. On the present chronology they should fall within the third to second century B.C.

Layer 19 was floored with a deposit of white ash which at one point was enlarged into Pit Z but was otherwise of little interest. Layer 18 was similarly featureless, but produced a notable clay sealing stamped with a figure of Athene of Greek workmanship (p. 121). The layer lies midway between the Northern Black Polished Ware of 20 and the 'Gandhāran' material of 14 and should theoretically therefore belong to the latter part of the first century B.C.—a likely enough date.

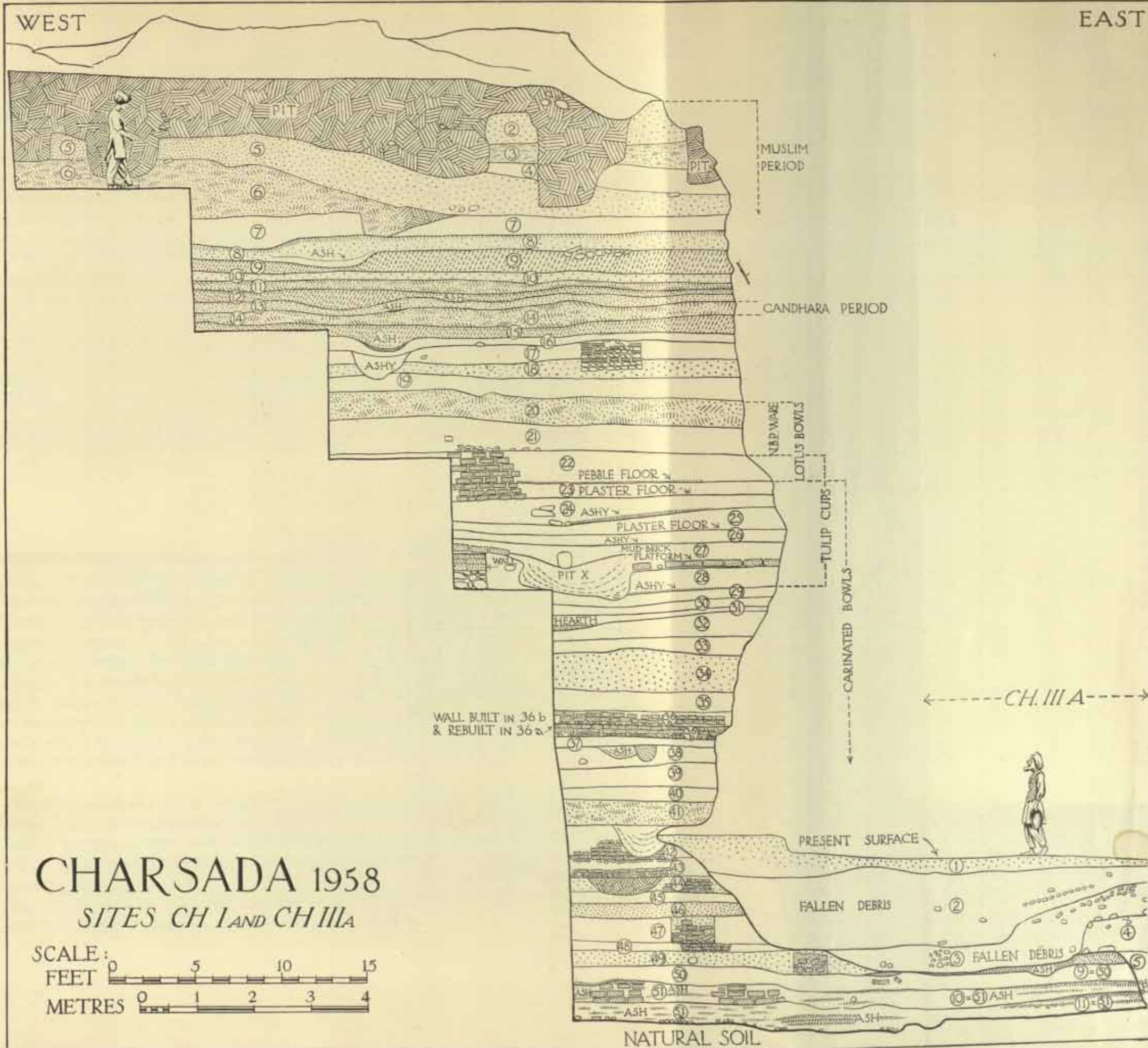
Layer 17 accumulated beside a chunk of solid walling 3 ft. 7 in. wide which had been built into layer 18. The wall was founded on two courses of boulders, above which thin baked bricks, approximately $11 \times 11 \times 1\frac{1}{2}$ in., were interleaved with and supplemented by pebbles. It was pre-Gandhāran (in the sense used here) and, from its position, might well be of the first century A.D.

Layer 16 contained much ash but no structure. Contemporary with it was the large Pit Y, which descended to a depth of 8 ft. 10 in. and produced much pottery (p. 73).

Layer 15 produced a schist toilet-tray of a type for which the first century A.D. is regarded as a central date (p. 123).

Layer 14 yielded four pieces of Gandhāran schist carving (p. 123), ascribed approximately to the second to fourth centuries A.D.

Layer 13 showed remains of a wall 2 ft. 2 in. wide with a branch wall on either side, built mainly of reused and broken thin baked bricks ($11 \times 11 \times 1\frac{1}{2}$ in.) with an infilling of clay, stone, and brick. Alongside, on the floor-level, was a flat upper quernstone. Layers 13-8 were characterized by fairly large jars with a line of stamped triangles along the shoulder. There were no 'frilled' rims such as characterized the large overlying Pit B (= layers 7-1). Layers 12-8 were devoid of structures. Layer 9 produced the lowest (earliest) sherd of glazed ware—plain white.



Layers 7-1 were cut and confused by the immense Pit B, to which most of the pottery from this general horizon belonged. It was, however, ascertained that, in the surviving patch of undamaged stratification, layer 7 retained a mangled fragment of a large wall built clumsily of pebbles and (baked) brickbats; and that layer 5 included traces of two substantial mud-brick walls which showed signs of burning and were associated with a thick deposit of ash over the adjacent floor. The mud-bricks stood upon pebble footings. At the inner (western) edge of layer 3 were also slight remains of what appeared to have been a wall-angle, but the whole area was too much disturbed for certainty.

The pottery from Pit B was abundant and was the latest significant group on the site. It implied a considerable occupation at some period which I have conjecturally placed in the late twelfth century as a central date (pp. 7 and 20). I would emphasize that in the absence of analogies this is guesswork; but it seems perhaps unlikely that so much material belongs to the sketchy and opportunist occupations which appear to have marked the eighteenth century, historically an alternative period when the high mound may have been used more than once as a temporary *château fort* during the Sikh wars. It is more probable—and no more can be said—that it relates to some period of vigorous campaigning such as that of Muḥammad Ghūrī at the end of the twelfth century. There is a slight historical hint that the place was not held, at any rate, during the previous invasions of Maḥmūd of Ghaznī (p. 6).

(ii) *Ch. II: The Buried River* (fig. 5)

Some 330 ft. east of Ch. I, in the shallow valley which divides the High Fort, the Bālā Ḥiṣār, from the lower mounds to the eastward, a shaft 20 ft. square was cut for the purpose of ascertaining whether the High Fort had ever extended as far as this point. The extensive depredations of modern cultivators left this question unanswered without excavation. It may be said at once that the shaft, our Ch. IIA (the adjacent Ch. IIB was abandoned when Ch. IIA gave a clear answer), showed at a depth of 13-14 ft. from the present surface the waterlogged grey sand of a former river-bed. And above this alluvium the stratification produced only in the lowest layer a scattering of the pottery which characterized the first (earliest) dozen layers of the Bālā Ḥiṣār. The original town, on its eastern side, had manifestly stopped short of the river at a time when water flowed freely down its course. Today this river is presumably the Ṣāmbor, which has been diverted in a broad loop to the eastward before joining the river Swāt.

In more detail, the filling above the alluvium contained no structures; it consisted of dumped and water-washed material which had here and there been roughly hardened by cobbles, perhaps to form a traversable surface, notably at the bottom of layers 2 and 8a. Fifteen layers were distinguished, with subdivisions in 8, 12, and 14. Some of the layers, especially in the lower half of the cutting, were clearly water-laid and represented the sediment of pools or temporary renewals of the stream in rainy seasons. Most of the pottery consisted throughout of small water-worn sherds.

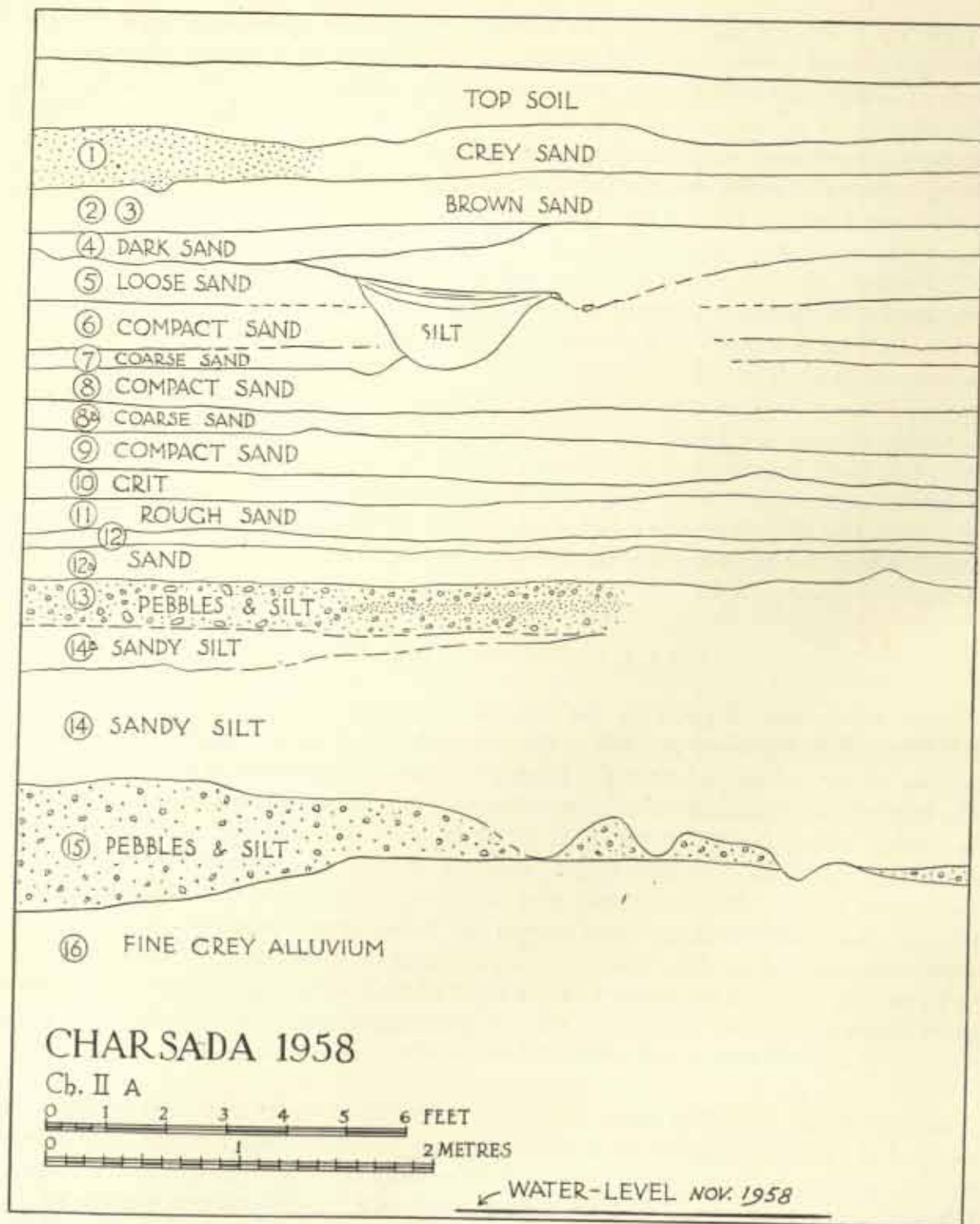


FIG. 5. Site Ch. II: section down to ancient river-bed.

'Rippled' ware occurred only in the lowest layer, 15. 'Soapy red' ware characterized layers 13 and 14 and was found sporadically in 12. Layer 9 produced sherds of 'Lotus Bowls' of the second century B.C.

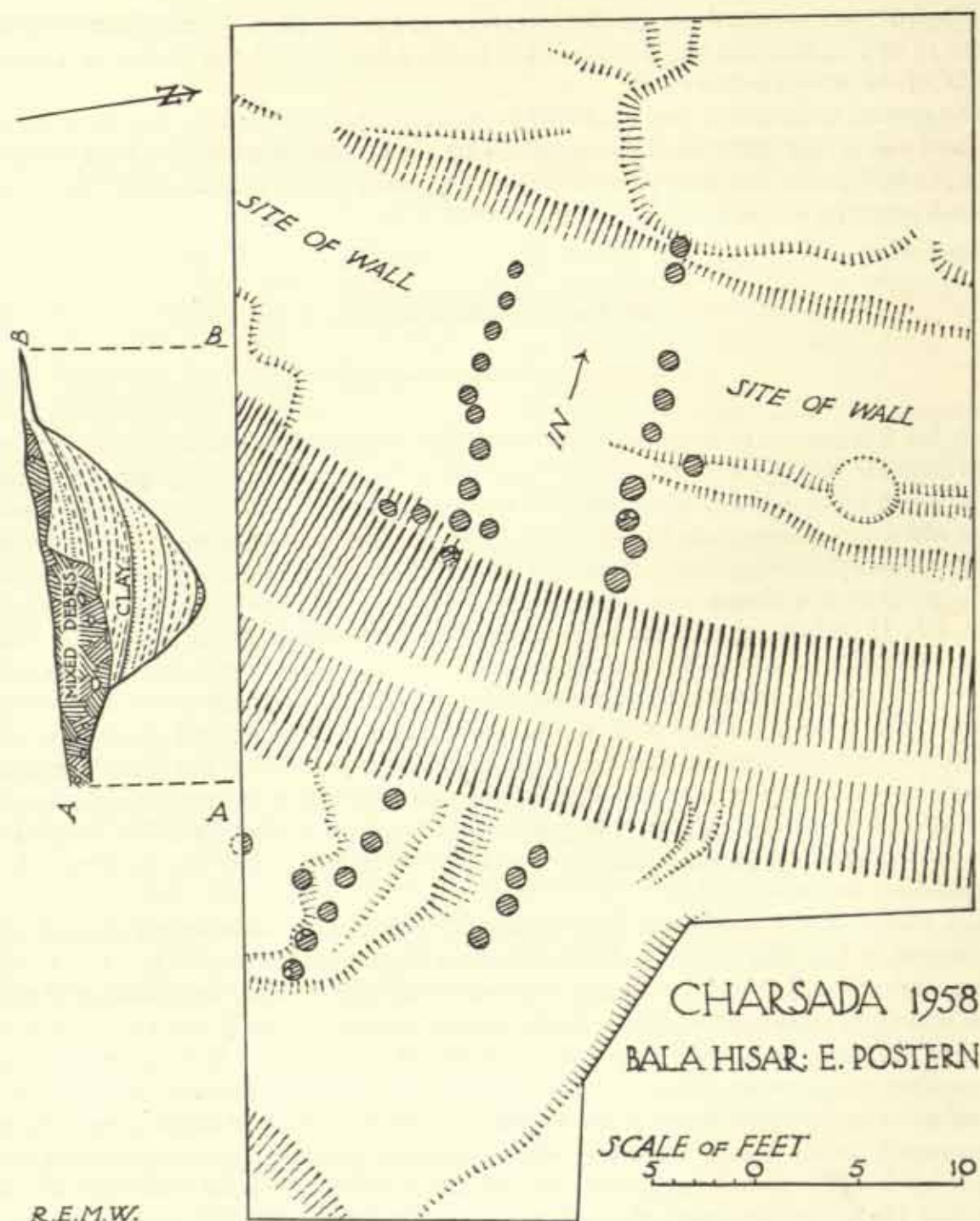
The general indication is that the filling began in the latter part of the fourth century B.C. and was at first fairly rapid, being helped by the considerable impact of the winter rains in these parts. The later layers represent a slower process, extending perhaps into the first centuries B.C. to A.D.

(iii) *Ch. III: The Defences*

(Pls. III and XI-XII, and figs. 3 and 6)

Ch. III was a series of eleven consecutive cuttings extending eastwards down a gentle slope from the foot of Ch. I—the main cutting down the face of the Bālā Ḥiṣār—towards the valley in which Ch. II had revealed the former river-bed. The cuttings were labelled A to K and were separated only by 3-ft. balks, so that in effect they constituted a continuous trench about 250 ft. long, with a minimum width of 8½ ft. and a maximum width of 35 ft. Their purpose was simple and inevitable, and was based on the following reasoning. First, Ch. II had shown that the main occupations represented by the Bālā Ḥiṣār had never extended in any substantial form across the river-bed. Secondly, as recalled above, the surviving account of Alexander the Great's manœuvres hereabouts in 327 B.C. tells us that it took a division of his troops under a trusted general thirty days to reduce the town, and implies therefore that the place was fortified at the time. Thirdly, in anticipation it may here be said that the evidence obtained in our excavations east of the former river-bed was wholly or largely post-Alexandrian in character. The inference was that the defences of 327 B.C. lay somewhere between Ch. I and Ch. II. Hence the intermediary series, Ch. III.

The character of a majority of these intermediary cuttings is sufficiently indicated by the section of Ch. IIIA which is added at the foot (centre and right) of Ch. I on pl. II. Some explanation, however, is needed. The systematic undercutting and robbing of the great mound by local cultivators has already been demonstrated (pls. II and IX) as a major cause of collapse; but this process was accompanied by extensive burrowing into the accumulations underfoot, often down to the underlying natural surface. At the most, therefore, only the lowest layers in Ch. III represented early material *in situ*. Above them was a mixed, untidy deposit of material which had fallen in modern times mostly from the upper levels of the mound; so that the present ground-level below the surviving face of the Bālā Ḥiṣār contains relics of many periods, including the Middle Ages and later. These miscellaneous deposits, marked 1-5, 'fallen debris', in the lower part of pl. II, continued in gradually diminishing quantity in Ch. IIIB-K, whilst in J and K patches of the natural soil lay immediately below the present surface—so thoroughly had the robbers done their job.



R.E.M.W.

FIG. 6. The defensive ditch on Site Ch. III J-K, with post-holes of postern and bridge; probably 327 B.C.

It was in Ch. IIIj and k that the purpose of this exploratory line of cuttings was achieved. There the defensive ditch which was our objective duly appeared (fig. 6), and beyond it to the east the ground sloped towards the former river-bed. The original defences of Chārsada had in fact been aligned approximately along the former river-bank.

As it survives, the ditch is not of very impressive size; its width is 12 ft. and its central depth from the natural surface 7 ft.; but the surface has here been dug into by robbers, with a consequent reduction of both dimensions. Taken in conjunction with our subsequent exploratory cuttings to the north and south of Ch. III, it is fair to estimate the original size of the ditch as something like 15 ft. wide and 10 ft. deep, with sides (as personal experience proved) sufficiently abrupt and slippery to provide a formidable obstacle, very difficult indeed to climb.

The filling of the ditch on Ch. IIIk, and at the other points where we subsequently cut into it, is of interest. In the toe of the ditch was a small quantity of grey alluvial sand, but no hint that the ditch had long been open. On the contrary, it had been very shortly filled with clean sand in which water, lying from time to time, had produced the usual striations. Pottery was almost completely absent. Only at the top, where the filling had been hacked into by the usual agricultural pillagers, was the mixed material which is everywhere characteristic of the surface strata.

In the face of the evidence it may be accepted that the ditch was deliberately filled, presumably with its own excavated earth which had doubtless meanwhile done duty as a rampart on the inner margin.

This rampart had indeed been completely scraped away on Ch. IIIk. Only a shallow, untidy channel marked its site. But chance, which deprived us of evidence in that matter, delivered other information for which we could scarcely have hoped. A series of post-holes, each a foot in diameter and 1-1½ ft. deep, indicated a former timber-lined postern and bridge and suggested that the rampart had in fact been some 16 ft. broad. The passage through it had been about 6 ft. wide.

Here it is appropriate to notice seven further cuttings across the line of the ditch, sufficient to indicate its course for 960 ft. along the eastern side of the old town, as far as the beginning of its turn at the north-eastern corner (fig. 3). On the northern side most of its course seems to have been lost by erosion and plundering; on the west and south it has not been sought. At a very rough estimate based on contours, it may originally have enclosed not less than 15 acres.

At one point 500 ft. north of our postern it is likely that further excavation may reveal the character of the missing rampart. There, on the last day of our season's work, when our camp was already on the move amidst torrential rain, our workmen toiled manfully to cut across the site of the bank, and the indications, impossible in the circumstances to record pictorially, were that it had been an earthen mound some 15 ft. wide faced on the outer side with a mud-brick wall 4 ft. thick, the base of which was still *in situ*. Consistently with this, another cutting 200 ft. farther north had already revealed in the bottom of the ditch, below the remainder of the clean filling, a number of fallen mud-bricks (pl. XII).

In date, there is no doubt that these defences fall within the period of the first 13 ft. of the Bālā Hīṣār, and belong probably to the end of that period. As already remarked, the main filling of the ditch was of clean earth, devoid of pottery. But such pottery as was recoverable from the horizon of the ditch and its immediate filling was of 'soapy red' ware with, in one instance, a 'rippled rim' lying actually on the natural soil below the brow of the ditch. Since the rippled rim is absent and the soapy red ware rare in the settlement across the former river, on its eastern side, it may be supposed that the defences marked geographically the eastern boundary of the first cultural phase; and if to this we add the evidence that the defensive ditch was open only for a short time, and that it must historically have been operative in 327 B.C., we are at the same time presented with a useful fixed point in our chronology.

(iv) *Ch. IV and V: The House and its Environs*

(Pl. XIII and figs. 7-8)

About 450 ft. south-east of the postern, on the gently rising ground beyond the former river-bed, the high external wall of a mud-brick house had been revealed by predatory cultivators. The house (Ch. V) was now partially excavated, together with an external area (Ch. IV) which contained two wells. Shortness of time and the complexity of the site prevented the complete excavation of the house but useful evidence was obtained.

The whole occupation of this area was subsequent to the 'rippled rim' period of the Bālā Hīṣār. A little 'soapy red' ware survived into the earlier levels of the site but quickly devolved into a harder derivative fabric in which some of the older forms survived for a time. The later phases were marked by 'Lotus Bowls' and 'Northern Black Polished Ware'.

The area Ch. IV was dug as a 20-ft. square down to the natural soil, which was 7 ft. below the present surface. A small part of it towards the southern end (layers 3b-8) retained an orderly stratification, but the remainder had been churned up by modern soil-robbers, who had undermined the foot of the adjacent house-wall as their fellows had undermined the lower part of the Bālā Hīṣār. But here there were no overlying medieval layers to fall and confuse the protohistoric material; so that in spite of disturbance the mixed strata retained in bulk their third- and second-century B.C. character. In particular the ancient filling of two wells, D and E, consisted of mutually similar debris of the middle or second half of the second century B.C. when, together or in close succession, they fell into disuse. It would be a reasonable conjecture to suppose that the filling of the wells accompanied the removal of the city to the new site on Shaikhān (p. 17) in or about the time of Menander.

The top of Well D had been lowered by the disturbance (referred to above) to the natural surface. The well had a diameter of 3 ft. 2½ in. and was cut with much precision without revetment through the hard marl for 16 ft., when it reached fine sand and was then revetted with pottery rings having an internal diameter of 1 ft. 11 in. At a depth of 18 ft.

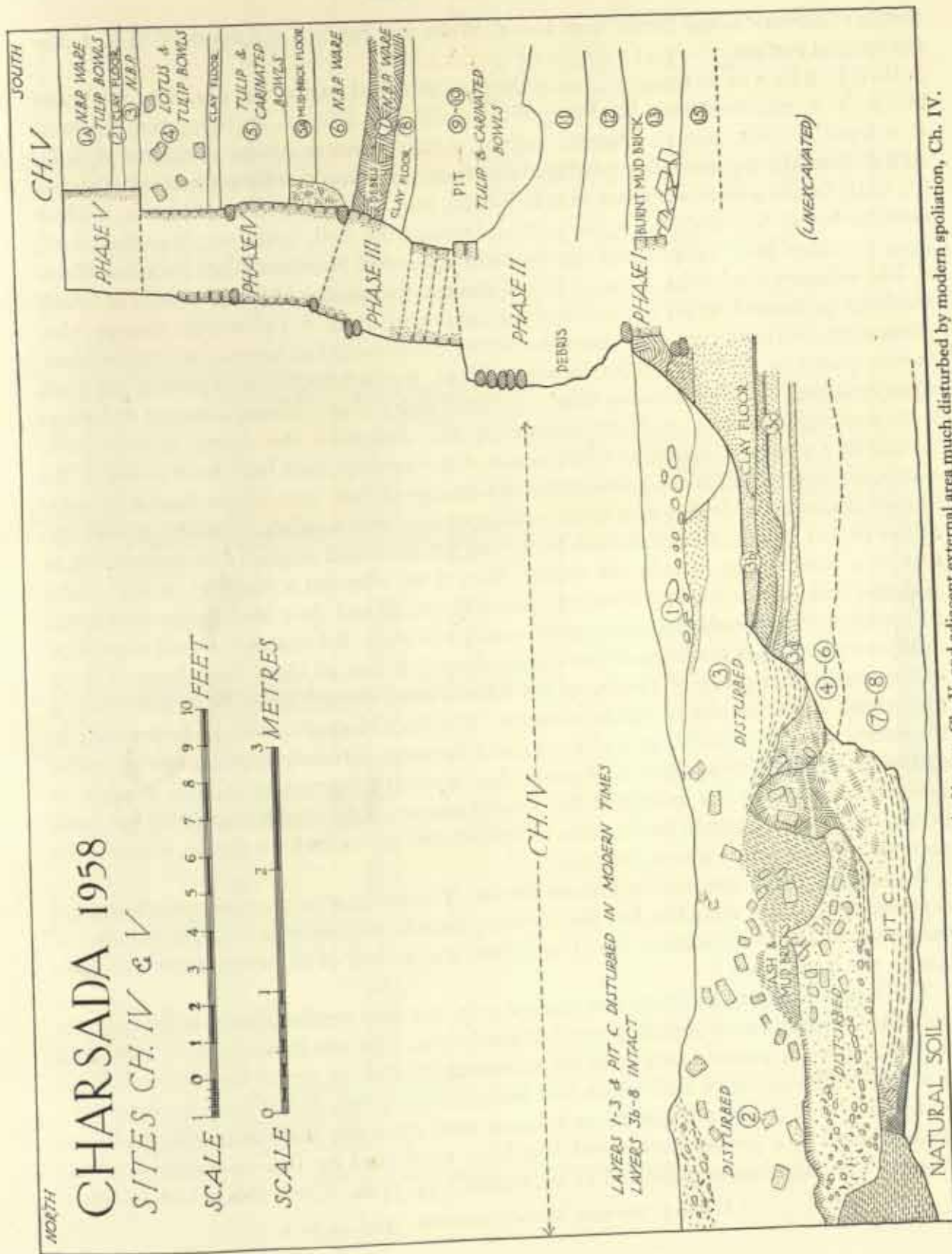


FIG. 7. Section through northern end of house, Ch. V, and adjacent external area much disturbed by modern spoliation, Ch. IV.

sherds of several 'Lotus Bowls' were found. Water was reached at a depth of 24 ft. below the natural surface.

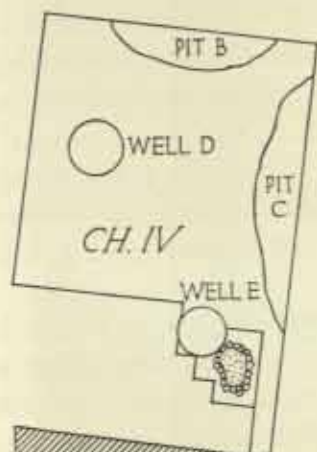
Well E, 2 ft. 7 in. in diameter, lay in the less disturbed part of the site, near the house of Ch. V. It rose to the top layer (3b) of the undisturbed strata. Its filling was removed to a depth of 18 ft., and its contents indicate a date of disuse similar to that of Well D. At 2 ft. from the top, the filling produced a worn and headless marble statuette of Heracles (p. 123); below 2 ft. it contained 'Lotus Bowls', and, at a depth of 10 ft. 10 in., a silver tetradrachm of Menander (c. 155-130 B.C.). Outside the well, in the top (but disturbed) layer 3, 'Lotus' and 'Tulip' bowls occurred with a sherd of Northern Black Polished Ware.

The adjacent mud-brick house of Ch. V showed five phases of construction, of which the latest is planned, so far as preserved and excavated, in fig. 8. Incomplete though it be, particularly on the eastern side where plundering and erosion had removed much evidence, certain points in the plan call for comment. First, the buildings in this part of the town were crammed together chock-a-block; on three sides of our house, adjacent buildings were built up against it with no intervening gap. Secondly, the rooms, as recovered, constitute a warren of a plan, in which much of the lighting must have been indirect. No doubt the eastern half of the house included a courtyard, but, even so, the double or triple line of rooms towards the west looks neither orderly nor sensible. Thirdly, two of the rooms (F and J) have a central mud-brick base which would normally be interpreted as that of a central post to hold the ceiling. But, if so, why did a majority of the rooms dispense with this provision? True, the rooms are small and their roofing should present no problem; but this observation applies equally to F and J. All that can be said at present, until more buildings at Chārsada have been cleared, is that all these three features recur in the contemporary city of Taxila, on the Bhīr Mound, though there the construction is carried out almost wholly in rubble masonry.¹ The Bhīr Mound buildings show precisely the same crowding of buildings and rooms, and the same curiously sporadic use of central pedestals, presumably to carry roof-posts. And general construction there is thought to have ceased towards the middle of the second century B.C., approximately at the same period when our Chārsada house came to an end, and no doubt for a similar reason—the removal of the town to a new location.

As planned, this house was the fifth on the site. The earlier structures were inadequately explored in the time available, but the northern outside wall shows a continuous reuse of the same building-line (section, fig. 7), and there was no hint of any appreciable interruption in the occupation.

The lowest (earliest) building was reached only in a very restricted area at the extreme end of the season, under appalling weather conditions. This was *Phase I*. Here, at a depth of 16 ft. below the present summit of the accumulative wall, we struck the face and debris of a well-built mud-brick wall which had been fiercely burnt. It had been founded on a double course of pebbles. *Phase II*, at a higher level internally than externally, had been reconstructed to a greater width and had been reinforced by five consecutive pebble courses. The mud-bricks measured 12 in. square \times $3\frac{1}{4}$ – $3\frac{1}{2}$ in. Above this it had collapsed

¹ Plan in J. Marshall, *Taxila* (Cambridge, 1951), iii, pl. 2.



CHARSADA 1958

SITES CH IV AND CH V

SCALE:

FEET 0 5 10 15 20

METRES 0 1 2 3 4 5

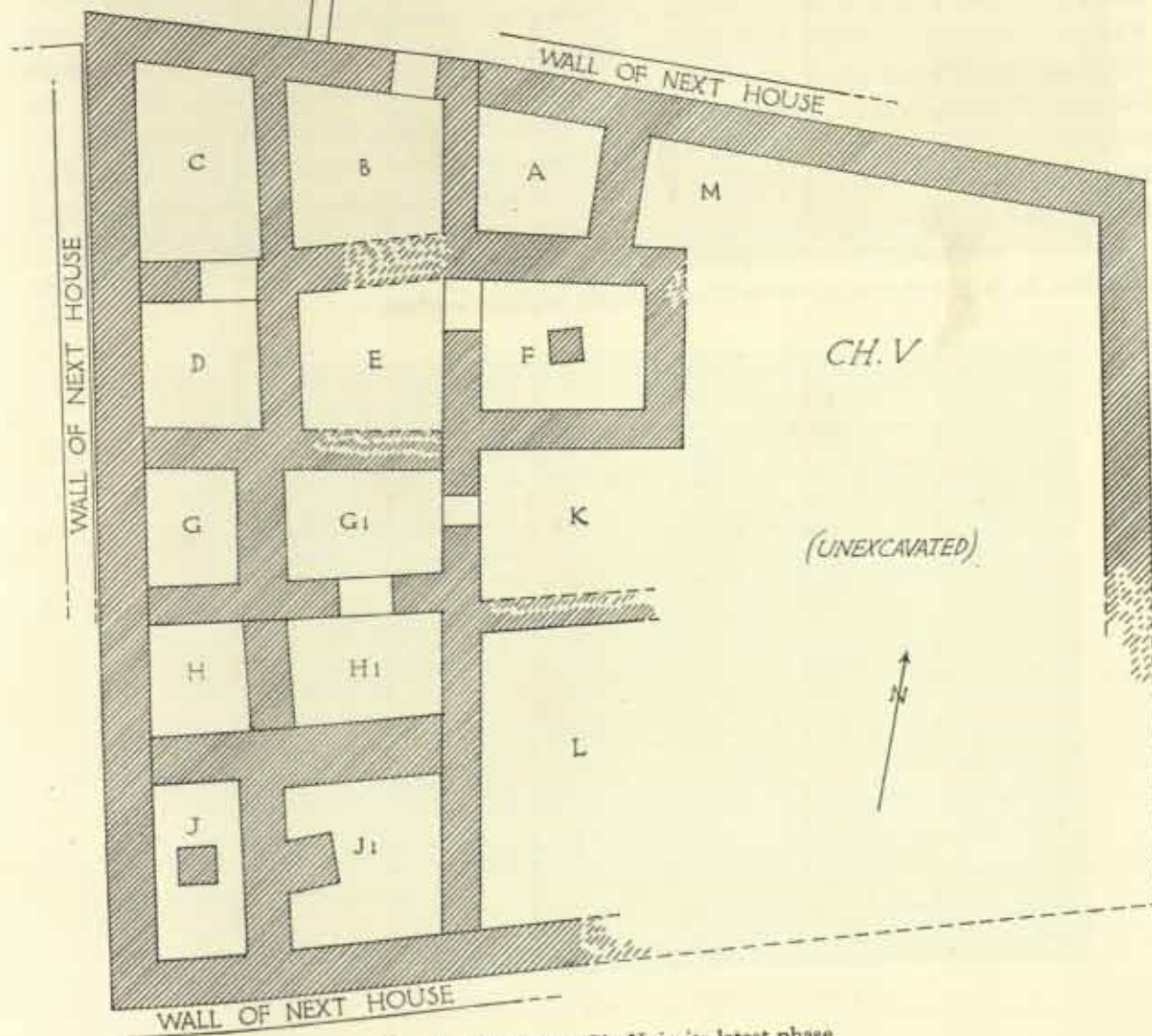


FIG. 8. The house, Ch. V, in its latest phase.

or been removed, and it was then rebuilt as *Phase III*, the new wall being set back a foot or more from the external face of *Phase II*. *Phase III* had subsided to an angle of 20 degrees from the vertical—for what reason can only be guessed, but an earthquake may be postulated. The mud-bricks measured $11-11\frac{1}{2}$ in. square $\times 3\frac{1}{4}-3\frac{1}{2}$ in. Above this, *Phase IV* rose vertically, based on and laced by single pebble courses. The wall of this phase stood to a height of $4\frac{1}{2}$ ft., and the mud-bricks measured $11-11\frac{1}{4}$ in. square $\times 3\frac{1}{4}-3\frac{1}{2}$ in. Above it in turn rose 2 ft. of the final *Phase V*, in which the wall was thickened internally. The latest mud-bricks measured $11-11\frac{1}{4}$ in. square $\times 3\frac{1}{2}$ in.

An initial fire, a possible earthquake, and the periodical wear and tear to which mud-brick is susceptible in a frontier climate combined to produce an accumulation of walls and strata which is not necessarily commensurate with a great stretch of time. The pottery recovered from *Phase I* was insufficient for diagnosis, though it is likely that this phase was partially contemporary with the use (though not the filling) of Well E close outside the building. *Phases III-V* produced, in the appropriate occupation-layers within the building, Northern Black Polished Ware (seven sherds), and 'Tulip Bowls' throughout; and *Phase IV* also produced 'Lotus Bowls'. In estimating the significance of this distribution, it should be borne in mind that *Phases IV and V* were far more extensively explored than *Phases I-III*.

On the chronology here adopted, the house—at any rate in *Phases II-V*—may be ascribed to c. 300-150 B.C., with *Phase I* only slightly earlier.



A. The Bala Hisar from the south-west



B. Defensive ditch beside the Bala Hisar, 327 B.C.





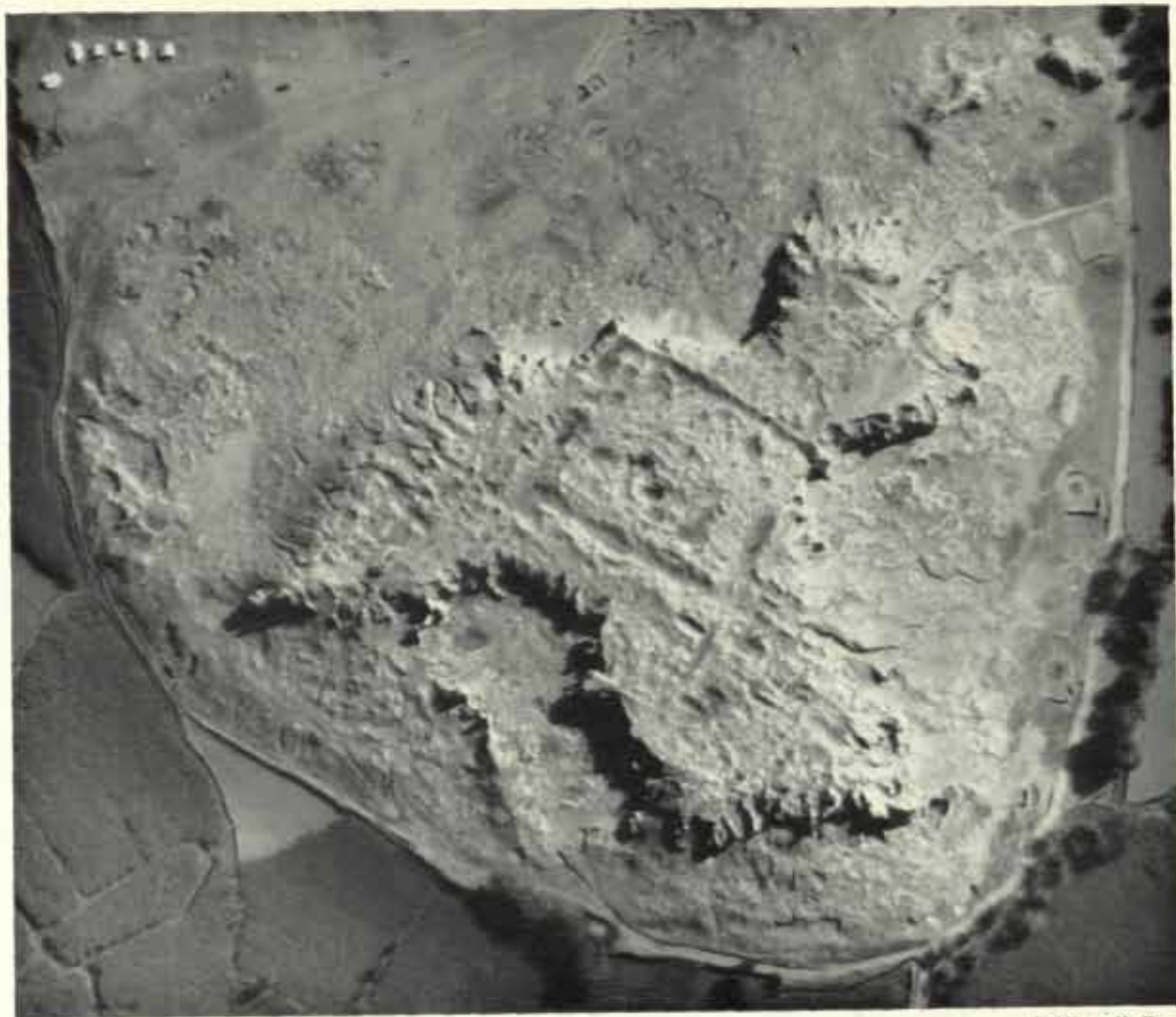
Pakistan Air Force

The Bālā Hīṣār and adjacent mounds from the air. The double cutting Ch. II is in the centre.
(North towards the left)



Pakistan Air Force

Oblique air-view of the Bālā Hīṣār and adjacent mounds from the west



Pakistan Air Force

A. The Bālā Hīṣār from the air, showing traces of a rectangular enclosure on the top. (North towards the left)



B. The Bālā Hīṣār: spoil-trenches of the rectangular enclosure shown in the air-photograph above



A. The Bala Hisar: typical view of present face showing the pebble footings of buried walls



B. The face of the Bala Hisar at Ch. I before excavation



a. The Bala Hisar: the cutting Ch. I half-way down. Parts of Ch. III in the foreground



b. The Bala Hisar: Ch. I approaching completion



The Balā Hisār being undercut and removed, prior to 1944.



A. Trench (Ch. III) cut from the present eastern face of the Balâ Hîsâr (foreground) to find the former fortifications. In the ninth (uppermost) of the cuttings the defensive ditch has appeared. Top right is Ch. II, cut into the former river-bed which lies across the top of the photograph



B. The same scene from the west. Nearest to the camera is Ch. II. At the back is Ch. I in the present face of the Balâ Hîsâr. Between the two is the exploratory trench Ch. III, in the nearer end of which is the defensive ditch



Defensive ditch on Ch. III, ascribed to 327 B.C. The upper photograph, looking south, shows the post-holes for the postern (right) and bridge. See p. 25



The defensive ditch near its northern bend. In the bottom filling are fragments of mud brick from the former face of the rampart. See p. 27



Site Ch. IV with Well D in foreground and the house-wall of Ch. V at the back, showing successive periods of construction



a. The mound of Shaikhān in the middle distance, seen from the Bālā Hīṣār

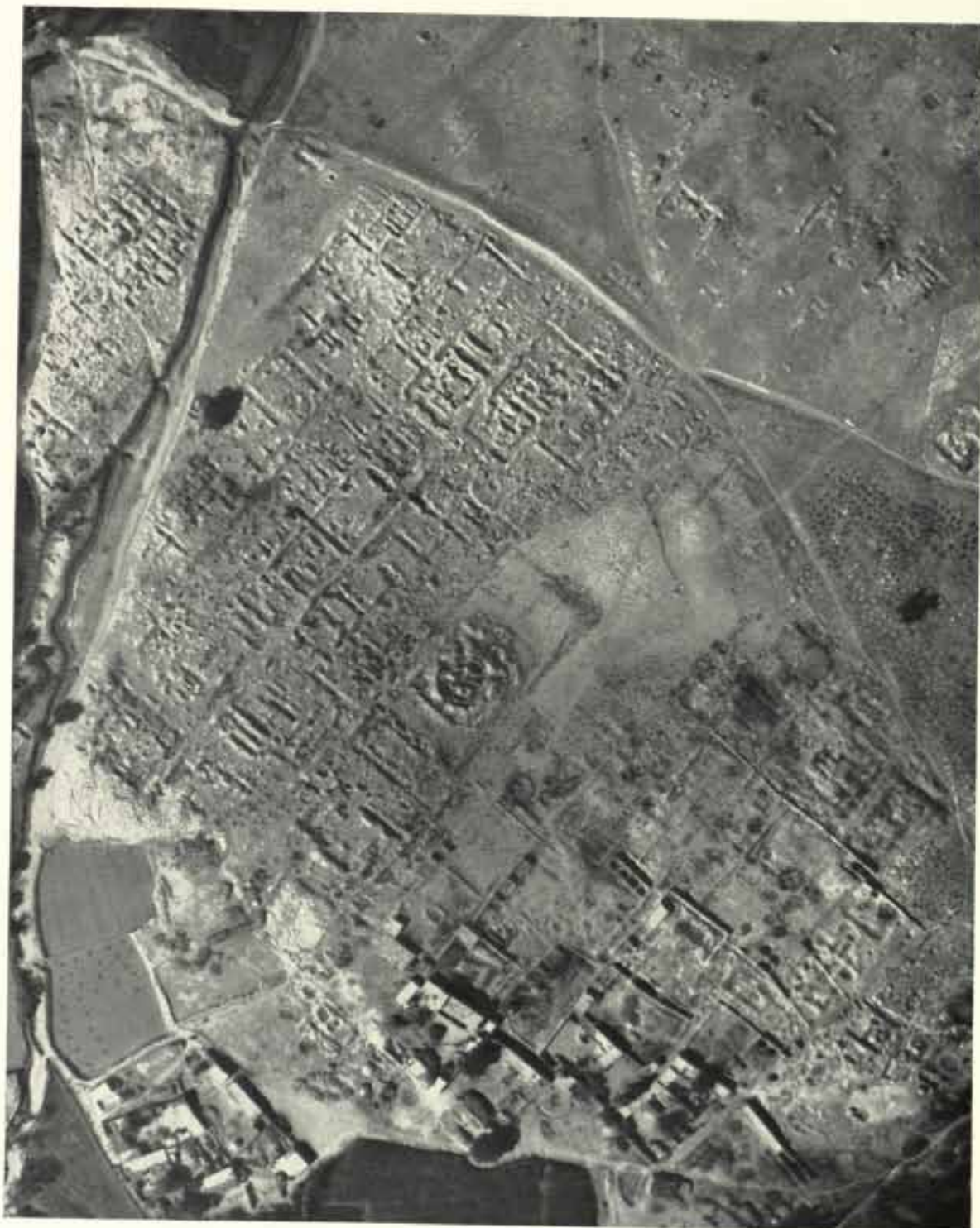


a. Shaikhān from the ground, showing spoil-trenches. The site of the stupa is in the foreground



Shaikhān: air-photograph showing traces of the ancient town. (*North towards the top*). See p. 16

Pakistan Air Force



Shaikhān: southern part of pl. XV enlarged. Traces of a stupa can be seen in the centre. Its oblong courtyard is 50 yds. wide

Pakistan Air Force

VII

CHRONOLOGY

By far the greater part of the material—pottery, terracottas, beads, bangles, and a miscellany of less abundant relics—from the 1958 excavations was either new to knowledge or had not previously been placed in a strict stratigraphical context. To achieve the latter is of course a matter of routine on a modern excavation. But the further, indispensable stage of relating stratigraphy to an absolute time-table presented peculiar difficulty. I have elsewhere described the attempt to produce such a time-table as resembling the breaking-down of a code, and that is true enough. On the basis of the established stratigraphical interrelationship of the various types and groups of object, the procedure was to postulate a series of possibilities and to try them out against one another, until at last they were found to work within reasonable margins of logic and certitude.

Neither radiocarbon material nor epigraphy nor coins helped in this process. In fact, only a single identifiable coin was found—cleaned and identified long after discovery—and, though it fitted into our hypothetical scheme to a nicety, was not primarily instrumental in its postulation. The basic postulates were as follows.

Postulate I. Right down to the earliest level of the Bālā Hīṣār, iron was in use. I am assuming that this indicates an initial date unlikely at Chārsada to be later than the third quarter of the sixth century B.C., when the Persian Empire extended into Gandhāra (the North-West Frontier region), and the existence or establishment of the principal city of that region may be assumed. Nor is it likely to have been appreciably earlier. There is at present no clear evidence for the systematic use of iron anywhere in the subcontinent before that time, unless sporadically in the extreme north-western region. Attempts to equip the Vedic Aryans in the middle of the second millennium B.C., or their successors of the Brāhmaṇa period, with iron have no solid substance.¹ True, iron was known in Persia, as at Tepe Giyan I and Siyalk A and B, at the end of that millennium and the beginning of the next, and may have penetrated here and there into the low-grade but accessible cultures of the Baluch borderlands within the first half of the first millennium.

¹ It is no longer seriously maintained that the Vedic *ayas* (Latin *aes*) was iron rather than copper. The 'black copper', *syāma ayas*, of the subsequent Yajurveda has commonly been interpreted as 'iron'; but in any case the Yajurveda in its present form probably falls well within the first millennium B.C. The literary evidence is broadly stated in the *Cambridge Hist. of India*, i (1922), s.v. 'iron'; see also A. L. Basham, *The Wonder that was India* (London, 1954), p. 42. Archaeological progress in the matter has been disappointingly slow. A series of useful works on the early development of metallurgy have dealt only cursorily and repetitively

with this aspect of the problem; see e.g. R. J. Forbes, *Metallurgy in Antiquity* (Leiden, 1950), pp. 436, 443 (thinks *ayas* = iron); O. Johannsen, *Geschichte des Eisens* (Dusseldorf, 1953), p. 15; H. H. Coghlan, *Notes on Prehistoric and Early Iron in the Old World* (Oxford, 1956), p. 62; Leslie Aitchison, *A History of Metals* (London, 1960), i. 135. Iron was known to the Hittites in the fifteenth century B.C. and to the Egyptians in the fourteenth century B.C., but its use did not become widespread until the ninth to seventh centuries B.C. and was not then uniform. See R. Ghirshman, *Iran* (Harmondsworth, 1954), pp. 86–87.

Much has been made in this connexion of certain insecurely dated cairn-burials sometimes containing iron objects in south-eastern Persia and southern Baluchistan.¹ But even when iron became widely known its use was at first patchy and restricted. As late as the earlier half of the fifth century B.C. the powerful Massagetae of eastern Iran were still without it.² The earliest unequivocal literary evidences for the use of iron by Indians are the well-known references by Herodotus and Ktesias in that century;³ and the earliest firm archaeological evidence for the normal use of iron within the subcontinent is provided by the first Taxila (the Bhīr Mound), for which Sir John Marshall's initial date of c. 500 B.C. is unlikely to be varied significantly.⁴ It is reasonable in the present state of knowledge to associate this developed use of iron with the imposition of Achaemenid suzerainty first upon Gandhāra and then upon the Indus region by Cyrus and/or Darius (see p. 3), with the consequent quickening of trade and civic life in the north-west. To this same period of cultural expansion the earliest Chārsada culture is now accordingly ascribed, and the ascription is not at variance with the accumulation (amounting to some 12-13 ft.) on the site of the Bālā Hīṣār in the pre-Alexander period, i.e. in the two centuries between, say, 530 and 327 B.C. That accumulation is not inconsiderable, but throughout this period the successive buildings were of mud-brick and it is to be expected that the rate of deposit was proportionately rapid.

Postulate II. When Alexander's experienced troops besieged Chārsada in 327 B.C., the place held out against them for no less than thirty days (Arrian, *Anabasis*, iv. 22). The besieging force was a strong one, consisting of three brigades of infantry, half of the companion cavalry (the horse guards), and the whole of the mercenary cavalry. The inference is certain that at that time the city was girt with defences. A length of 320 yds. of ditch with the site of a former rampart was in fact identified in 1958 (pp. 10, 27) in the only relevant spot; and it was ascertained stratigraphically that the ditch had been refilled after a very short exposure. This is consistent with Arrian's statement that the capture of the city 'involved its ruin' (*Anabasis* as cited). The slighting of the city included the demolition of its defences, which had been constructed presumably to meet the impending attack.

✓ *Postulate III.* The only familiar pottery-fabric found during our digging consisted of a dozen small sherds of the so-called 'Northern Black Polished Ware'. This Gangetic fabric I shall discuss on p. 41, where I ascribe its introduction into the north-west of

¹ The best summary account of these cairns is by D. H. Gordon, *The Prehistoric Background of Indian Culture* (Bombay, 1958), pp. 156-61.

² Herodotus, i. 215.

³ *Ibid.*, vii. 65; Ktesias reflected apparently in Diodorus Siculus, II, 16 and 36.

⁴ Some of my Indian colleagues would prefer an earlier introduction of the use of iron into the subcontinent (e.g. G. R. Sharma, *The Excavations at Kaushāmbī, 1957-59*, p. 13); but this view is based upon the conventional Indian (I suggest, inflated) chronology for the Painted Grey and Northern Black Polished wares, for neither of which is there at present an objective initial date.

Again, at Ujjain in Madhya Pradesh the earliest occupation (Period I) is associated with iron and preceded the Northern Black Polished Ware of Period II (N. R. Banerjee, 'The Excavations at Ujjain', in *Indologien-Tagung 1959*, edited by E. Waldschmidt, Göttingen). But Ujjain is geographically peripheral to the Northern Black Polished Ware centres of diffusion, and it cannot be averred that the ware arrived there promptly in (the theoretical) 500 B.C. Further research may of course ultimately put back the beginning of iron in northern and central India, but it has not clearly done so yet. Meanwhile I have played for safety, preferring minimum dates throughout.

the subcontinent mainly to the spread of Mauryan control from the Ganges to the Hindu Kush in and after 305 B.C. It may in the Ganges-Jumna *doāb* have begun as early as the fifth century B.C. (the initial date is still very uncertain), but on general grounds a fabric which is foreign to the remote north-western region wherewith we are now concerned, and occurs there only in tiny quantities, may fairly be supposed to represent in this context a secondary pervasion from its distant homeland. On the present evidence, this distinctive fabric passed out of normal use in the northern plains sometime in the second or first century B.C. Its rare but well-stratified occurrence at Chārsada I ascribe, therefore, to the period 300-150 B.C. or thereabouts.

Postulate IV. Layer 14 (from the top) of the Bālā Hīṣār, 41 ft. above the natural soil and some 5 ft. or half a dozen layers above the later of two sherds of Northern Black Polished Ware from the section, produced four pieces of schist carving of the so-called 'Gandhāra School'. This school has never been adequately dated objectively but there is little doubt that most of its stone products should be placed broadly between the second and fourth centuries A.D. These are wide brackets but are useful as a chronological hint. It has been seen (pp. 14, 17) that before this period the main Pushkalāvati had been moved from the Bālā Hīṣār to an adjacent site, so that the upgrowth of only 5 ft. of mound between the second century B.C. and the second century A.D. (or later) is not a difficulty.

From these four leading postulates certain subsidiary ones follow. Thus both on Ch. I and on Ch. IV-V, the Northern Black Polished Ware is associated with an abundant local ceramic type which is so distinctive as to suggest a fairly limited duration. This is the type which I have called the 'Lotus Bowl' from the fact that a lotus is imprinted on the inner side of its rounded base. Its other characters are an extremely hard and fine buff or orange fabric, thin walls, and sharp multiple grooves externally below the rim. I have observed the type nowhere save at Pushkalāvati, and cannot help suspecting more than a coincidence in the association of the Lotus Bowls with the Lotus City—a 'Present from Pushkalāvati'! Being a local type it largely outnumbers and somewhat outranges the imported Northern Black Polished Ware but is essentially contemporary with it. Furthermore, sherds of the type occurred on Ch. IV in the filling of Well E with a good tetradrachm of Menander (c. 155-130 B.C.), and there can be no doubt that the Lotus Bowls were in use in the second century B.C. I assume here that they may be dated late third to second century B.C. They occurred on all the excavated sites except on Ch. III, where only the earliest (deepest) strata survived intact.

The same argument and date apply to the distinctive terracotta figurines to which I have given the sobriquet 'Baroque Ladies'—third (probably late third) to second century B.C.

To go back to an earlier phase, the 'rippled rim' cooking-pots characteristic of the earliest strata on Ch. I and III but absent from Ch. IV and V are associated with the defensive ditch of 327 B.C. but scarcely outlasted it. In the adjacent river-bed which was subsequently filled up, they were found only in the lowest stratum of the filling. In the

Bālā Hīṣār they occur in the earliest twelve layers to a height of about 13 ft. above the natural surface. I date them accordingly from the sixth to the latter part of the fourth century B.C.

The distinctive polished red fabric which I have named 'soapy red' ware was contemporary at its best with the 'rippled rims' but lasted on for another eight layers, until the Bālā Hīṣār had reached a height of 21 ft.

For a syncopated section linking the excavated sites and showing the relative incidence of diagnostic wares, see fig. 9.

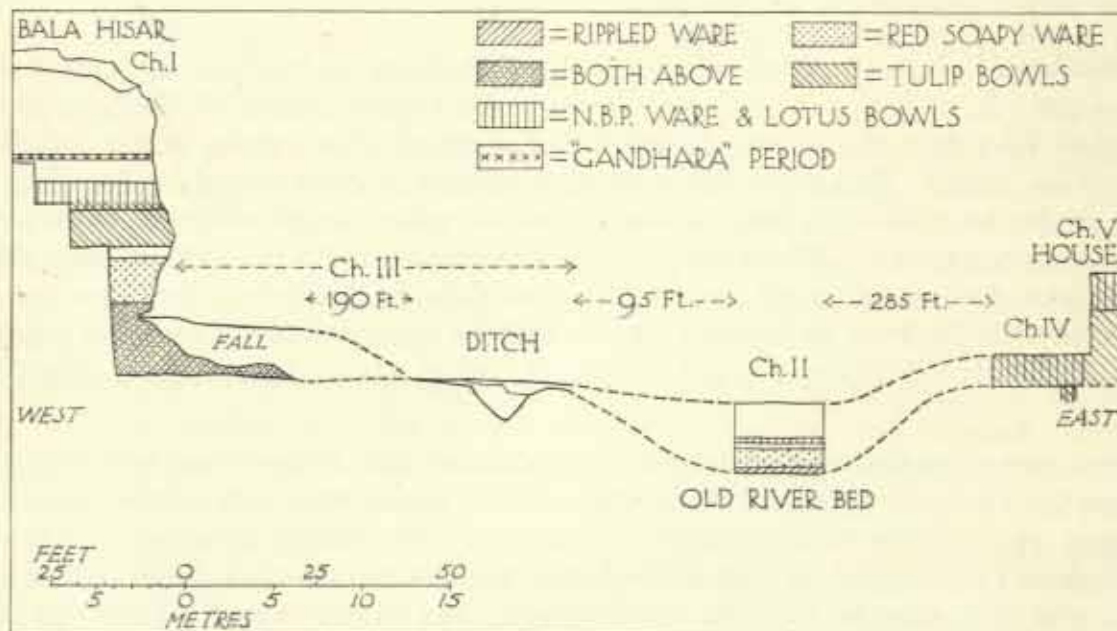


FIG. 9. Syncopated section eastward from the Bālā Hīṣār to illustrate the relative incidence of significant wares.

The whole of this tentative time-table cross-checks rationally and is unlikely to be far wrong. The city began on the site of the Bālā Hīṣār, and its core remained there until the middle or second half of the second century B.C., by which time it had risen to a height of 32 ft. Meanwhile, in the third and second century a thriving suburb had grown up eastwards across the river, which was now filled up and diverted. Thereafter, in the second or first century B.C., the main city was moved to a new site revealed to us by air-photography (p. 16). Such occupation of the Bālā Hīṣār as ensued during the following centuries was not of an intensive, civic kind, and may be ascribed largely to the remote or dominant character of the mound. In the 'Gandhāra' or 'Buddhist' period I have suggested the possibility of a monastic settlement—probably nothing more. Later the High Mound was probably held intermittently as a fortress or police-post by Muslims, Durrānīs, and Sikhs, a purpose to which it readily lent itself. But of a town there in any significant sense, be it repeated that there is no evidence later than the second or first century B.C.

VIII

THE POTTERY

A REPRESENTATIVE selection from the great mass of pottery found on each of the five sites (Ch. I-V) is prefaced by a note on eight recurrent key-types chosen on the basis of form or fabric as especially distinctive in kind or range. With one exception they, like the rest of the pottery, were new to knowledge, and a primary task of the excavators was to break down the 'code' which the whole mass of sherds presented in terms of something approaching an absolute chronology. The method adopted was to work out a stratigraphical cross-reference for each type from site to site, i.e. to determine overlaps and divergences in the relative position of each type in the stratigraphical sequence of the five excavated sites; and then to postulate and test a chronology in the light of the very few known or conjectured data (p. 33). The fact that we were dealing with essentially new industries and cultures lent this process a somewhat special interest.

For the rest, the pottery from each site is illustrated stratigraphically, beginning with the lowest (earliest) stratum. This method involves much repetition from layer to layer and site to site, but such repetition has an obvious utility in the present state of knowledge. Approximate dates, on the system here adopted, are added to each figure. However much these may be varied by new evidence, the relative sequence will remain intact.

(i) KEY-TYPES (fig. 10)

The selected key-forms and fabrics were as follows.

I. '*Rippled rim*' ware. No complete section was discovered, but the rims represent a fairly large globular jar or cooking-pot, possibly round-bottomed. The buff-brown ware usually had a rough gritty surface, and was generally (perhaps not invariably) wheel-turned. The rims were unmistakable; they were sharply out-turned, usually an inch or more in length, and were notched or rippled on the edge (fig. 10, 1-2).

These rims occurred in the earliest layers on the site. In the main section, Ch. I (pl. II), they characterized the lowest twelve layers, i.e. 41-51a comprising a total height of 13 ft., but were completely absent above layer 41. They thus ended twenty layers (roughly 20 ft.) below the Northern Black Polished Ware, of which more will be said later.

On site Ch. III, an eastward extension of the lower part of Ch. I, they appropriately occur in all the undisturbed layers (maximum, 5 in number) overlying the natural soil.

On site Ch. II, in the valley immediately east of the Bālā Hīṣār, a rippled rim occurred in the lowest layer (15), immediately above the alluvium of the buried river, and rims of the same type but without the notches or ripples occurred in layers 15 and 14. Above

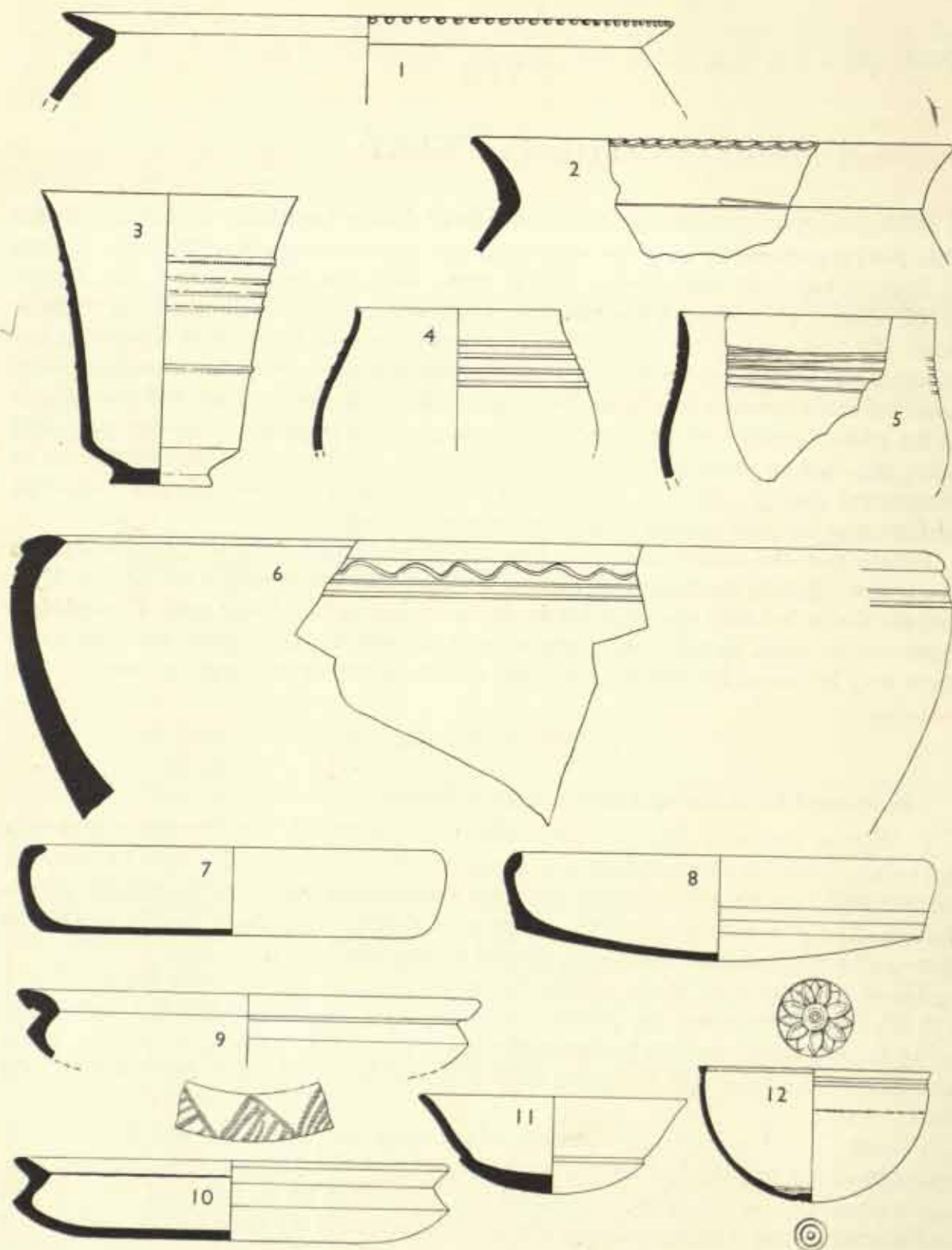


FIG. 10. Recurrent or significant types of pottery. $\frac{1}{2}$.

layer 14 the type was wholly absent. This and similar evidence shows that the main accumulation in the river-bed occurred after the Bālā Hīṣār had reached its layer 41, i.e. approximately the twelfth layer above the natural soil.

From sites Ch. IV and V, east of the buried river, the type is completely absent, thus indicating (with other evidence) that the extension of the town across the river occurred somewhat later still.

The type has not been recorded from any other site in the region; no example is shown in the Taxila Museum.

The provisional date allocated to it in this report is c. 550-325 B.C.

The examples illustrated in fig. 10 are:

1. Reddish ware, wheel-turned, from Ch. I, layer 41.
2. Similar, from Ch. IIIB, layer 10, approximating to Ch. I, layer 51.

II. '*Soapy red*' ware. Richly red or reddish ware, sometimes hand-made and usually polished, with a pleasant soapy feel. The ware occurs in a number of forms, including Type III below, fine semicircular bowls or cups with external cordons, corrugations, or grooves, and pedestals from vessels of uncertain shape.

On Ch. I the ware is abundant from layer 33 downwards to the natural surface, and so lasted somewhat later than Type I with which it is, in bulk, roughly contemporary.

Appropriately, it occurs freely in the undisturbed layers of Ch. III.

On Ch. II it is represented in the lowest four layers, 12-15.

On Ch. IV-V it occurs rarely in the early layers and passes into harder derivative variations. It is wholly absent from the filling of Well E, here dated c. 150-100 B.C. Schematic date: c. 550-300 B.C. or a little later.

The examples illustrated in fig. 10 are:

3. From Ch. IIIA, layer 10, approximating to Ch. I, layer 51. Fine ware, wheel-turned.
4. From Ch. I, layer 39. Wheel-turned.
5. From the same layer as 3. Roughly turned on a *tournette*.

III. *Wavy-line bowls*. Club-shaped rim, upright with blunt shoulder or carination, and with a grooved wavy line on the upright portion. Wheel-turned but sometimes clumsily so. The ware is characteristically of the smooth red soapy quality described above, but some of the later examples are in a harder fabric.

On Ch. I (with III) the type (latterly in the harder ware, earlier in 'soapy' ware) occurs from layer 22 downwards to the bottom of the section. Analogues occur in the two lowest layers (14 and 15) of Ch. II; and they are found also east of the river-bed in Ch. IV, which should thus have begun to accumulate in the period of Ch. I, layers 22-40, i.e. in the period immediately preceding the Northern Black Polished (N.B.P.) Ware on this site.

Our provisional date for the type is therefore 550-250 B.C.

The example illustrated in fig. 10, 6, comes from Ch. I, layer 34.

IV. *Dishes with incurved sides.* Shallow flat-bottomed or sagger dishes with roughly vertical but convex sides, the upper end of which may be markedly inturned. Various fairly rough brown fabrics. Wheel-turned.

The type lasts, without appreciable evolutionary change though in casual varieties, on all our excavated sites and throughout our main pottery period, c. 550–100 B.C. ✓

Of the two examples illustrated in fig. 10, no. 7 comes from Ch. V, layer 11; no. 8 from Ch. I, layer 24.

V. *Carinated bowls.* These are fairly shallow bowls of reddish ware with an everted rim and a sharp, distinctive carination below it. Groups of three or four irregular lines are often painted across the upper surface of the rim in black or brown paint. In stratigraphically late examples the carination tends to be more blunted. Wheel-turned.

On Ch. I the blunter varieties are found as late as layer 18, but the more sharply carinated form occurs in layer 23 and is abundant from layer 27 to the bottom of the cutting (natural soil). The main bulk of the type thus precedes the Northern Black Polished Ware (layers 20 and 21), but there is some overlap. This evidence tallies approximately with that from Hastināpura in the Ganges valley,¹ where an example of the type is found in Period II, preceding the Northern Black Polished Ware of Period III. On the other hand, the Northern Black Polished Ware is likely to have been in use at Hastināpura before it reached Chārsada (see below, p. 44). ✓

On Ch. IV, east of the river-bed, the type occurs in the topmost layer cut through by Well E but is absent from the filling of that well, dated c. 150–100 B.C. The date-bracket for the type would therefore appear to be 550–200 B.C., without excluding occasional survivals after 200 B.C.

Of the two examples illustrated in fig. 10, no. 9, with painted black hatched triangles on the rim, comes from Ch. I, layer 27; and no. 10 from Ch. I, layer 24.

VI. *Tulip Bowls or Cups.* Little round-bottomed vessels of a buff or brownish ware, wheel-turned, with a 'kick' or slight carination half-way down the side. An abundant and not ungraceful drinking-bowl.

On Ch. I the type occurs in layers 22 to 28, where, in 22, it is contemporary with the figurines described below as 'baroque ladies'. It is absent from the lower layers and, appropriately, from Ch. III; also from Ch. II. On the other hand, it was found both in the disturbed levels of Ch. IV and in the filling of Well E on that site, with a good silver tetradrachm of Menander, c. 155–130 B.C. It occurred throughout the five phases of the house on Ch. V.

Schematic date: third and second centuries B.C. ✓

The example illustrated in fig. 10, no. 11, comes from the mixed third- to second-century material on Ch. IV.

VII. *Lotus Bowls.* Bowls of very fine buff or reddish buff ware. The section is often an exact semicircle, and might almost be the product of a mould, though there is no evidence

✓¹ *Ancient India*, nos. 10 and 11 (1954–5), p. 41, fig. 9, 51.

of this. A well-formed lotus is impressed on the centre of the interior. Fine grooves mark the rim externally. A very distinctive type, abundant but of fairly limited duration.

On Ch. I the type occurs in layers 20 to 24; in 20 and 21 it is associated with Northern Black Polished Ware (see below).

On Ch. II sherds of the type were found in layer 9, rather more than half-way down the section.

On Ch. IV several bowls and sherds occurred in the filling of Wells D and E, in the latter with a silver tetradrachm of Menander (c. 155-130 B.C.). The example illustrated (fig. 10, 12) comes from here.

On Ch. V the type occurs with several sherds of Northern Black Polished Ware in the penultimate Phase IV.

The type was evidently in use in the second century B.C., and its origin may go back into the latter part of the third century B.C.

VIII. *Northern Black Polished Ware*. Of this very distinctive ware a dozen small sherds were found at Chārsada in 1958, and some special consideration must be given to their dating. The problem is not at present an easy one, but it is of outstanding importance in Indian and Pakistani protohistory.

First, the ware itself. It is wheel-made and normally thin, with a highly lustrous surface ranging from grey or brown to black, and steel-like in quality. The paste is well levigated and is white to reddish. The bright gloss is not a glaze or lacquer. The process of manufacture is doubtful: it has been thought that, after being turned on the wheel, the pots were subject to elaborate burnishing, and then coated with a finely levigated, highly ferruginous clay, and again burnished; and that they were then fired under reducing conditions to a temperature producing an incipient fusion of the slip, this accounting for their exceptional hardness and lustre. More recently, the British Museum laboratory has questioned the burnishing without, as yet, providing any complete alternative explanation. Its present verdict¹ is that 'the unfired pots were dipped in a suspension of a ferruginous inorganic material, probably resembling a red earth; and that, after firing to a temperature of c. 800° C., the kiln was sealed so that the pots cooled in a reducing atmosphere. The mineralogical identity of the 'red earth' has not been discovered, and the main problem, namely the precise nature of the surface layer, remains unsolved.'

The ware has in fact been mistaken by some writers for Greek black gloss,² but, as Miss M. Bimson points out, there are several differences. Thus, a razor-blade will run smoothly across the Greek black, whereas it will cut into the Indian black. If very small fragments are held near a magnet, Greek black is attracted to the magnet, whereas Indian black is relatively non-magnetic. Greek black, when refired, is consistently stable at temperatures of c. 1,000° C., whereas Indian black shows considerable variation in its resistance to such temperatures.

¹ The result of experimental work by Miss Mavis Bimson, F.S.A.

² e.g. by Sir John Marshall, *Taxila*, ii. 432. Marshall

observes that this ware (our N.B.P. Ware) came mostly from the Bhīr Mound and appeared to be 'as early as the 4th century B.C.'

In the present position of uncertainty, it is well to retain the established name Northern Black Polished Ware or N.B.P. Ware which I gave to the fabric when my colleagues and I first published it in 1946.¹

The shapes are commonly bowls or convex-sided dishes. They occur profusely in the Jumna-Ganges *doāb*² on sites dating from the Early Iron Age, and it may be suggested as an idle guess that the great popularity of the ware was not altogether unconnected with its superficial resemblance to forged iron, which did not long precede it in the same region. The type extends eastward to Gaur and Pāṇḍuā in Bengal and, with markedly less profusion, southwards as far as Amaravati on the Krishna river; in the north-west it reached Udegram in Swāt, where Professor G. Tucci's expedition has found a sherd (seen by me) in a milieu attributed to the third century B.C.

This brings us to the question of date.

At Taxila in the Punjab the nature and importance of the ware were not understood by the excavators, but about twenty sherds have been identified amongst the pottery from the site. Of these, eighteen come from the earliest Taxila, the Bhīr Mound, the main occupation of which, on Sir John Marshall's dating, began about 500 B.C. and ended about 180 B.C.; the terminal date may in fact be somewhat later. Of the eighteen sherds, the larger number appear to have come from 7-13 ft. below the surface, only two fragments being higher than a depth of 7 ft. The bias is therefore on the earlier half of the period named, with a hint that the ware ceased in the second century B.C. Two sherds only come from the second Taxila, Sirkap, which began to succeed the Bhīr Mound site some time in that century; but very little work has been done upon the lower levels of Sirkap.

Unhappily, however, Taxila was not dug on the stratigraphical principles that are now normal, and it is impossible therefore to use the evidence as to depths with any confidence. Moreover, having regard to the many tons of pottery produced by the prolonged Taxila excavations, we can only pronounce the yield of Northern Black Polished Ware as unimpressive. All that can be said with assurance is that some time between the fifth and second centuries B.C. a thin trickle of Northern Black Polished Ware reached the Taxila area. And there is no manner of doubt as to the region from which it came.

Northern Black Polished Ware is, as already indicated, at home in the Ganges-Jumna *doāb*. The Early Iron Age city-mounds of this region produce it in great quantities. It was first recognized at Ahichchhatrā in the Ganges basin, where its occurrence was inadequately observed though it was undoubtedly restricted to the lower strata. More accurately, it is recorded from Period III (numbered from the bottom) in a carefully dug trial-trench at Hastināpura, beside an old course of the upper Ganges.³ In a depth of about 10 ft. were recovered more than a hundred sherds of the ware, its appearance equating there roughly with the arrival of iron and coinage. The succeeding Period IV yielded no Northern Black Polished Ware but contained five coins of the rulers of Mathurā ascribed to the second century B.C. Most of the Northern Black Polished Ware, therefore,

¹ *Ancient India*, no. 1 (1946), pp. 58-59. See also *ibid.*, nos. 10-11 (1954-5), pp. 143-6.

² For easy back-reference I have retained Ganges

for Gangā and Jumna for Yamunā.

³ B. B. Lal in *Ancient India*, nos. 10-11 (1955), pp. 50 ff.

should have preceded the second century B.C., and in this respect the evidence from Hastināpura tallies with that from Taxila. On the other hand, the evidence, as at present recorded, from the great city-site of Kaushāmbī, beside the Jumna some 30 miles from Allahābād, suggests the possibility of a somewhat longer duration of the Northern Black Polished Ware on that site. It is said there to occur from 'Structural Period 9' to 'Structural Period 16', whilst the periods 15 and 16 are also marked by the appearance of coins of the Mitra rulers of Kaushāmbī attributed to the second and first century B.C.¹

The witness, then, of Taxila, Hastināpura, and Kaushāmbī is that Northern Black Polished Ware ended in the second or first century B.C. The unanimity of this evidence is at present disturbed only by Śisūpālgarh in Orissa,² where three sherds of Northern Black Polished Ware were associated with, or even overlay, Rouletted Ware to which a date at the end of the first century B.C. or in the first century A.D. is firmly attached. It is evident, however, that Northern Black Polished Ware was regarded as a treasured high-class fabric, much as *terra sigillata* was regarded by the Roman world, and occasional survivals of the one as of the other may be expected. For the bulk of the Northern Black Polished Ware, the second century B.C. is an acceptable terminal date.

The initial date of the fabric, however, is still in the air. The trend of the evidence is that the Northern Black Polished Ware phase equated closely with an early, though not the earliest, phase of the Indian Iron Age. That is so at Hastināpura, where the previous phase was characterized by the use of copper and another ceramic known as Painted Grey Ware. On the other hand, at Alamgirpur in district Meerut, at Sravasti, and at Kaushāmbī, all likewise in Uttar Pradesh, iron overlapped the preceding Painted Grey Ware in its later stages.³ Again, at Ujjain on the northern fringe of the Vindhya Range iron occurred in Period I and preceded the Northern Black Polished Ware of Period II, whatever that may denote in terms of time.⁴ And at Bahal in East Kandesh, on the left bank of the Girna tributary of the Tapti, iron was noted in Period II, some 10 ft. below the first Northern Black Polished Ware. The latter occurred in Period IIIA; but since Śatavahana coins, possibly of the first century B.C., also reached the site before the end of Period III, the Northern Black Polished Ware would seem to have arrived late in this relatively peripheral region. A similar inference attaches to the evidence from Maheshwar, on the river Narmadā south of the Vindhya Range, a site likewise peripheral to the primary home of the Northern Black Polished Ware. Of twenty sherds of the ware found there, the earliest stratigraphically were associated with punch-marked coins ascribed conventionally to the fourth to third century B.C.⁵

Provisionally it may be averred that iron—Northern Black Polished Ware—coinage came into use in West Pakistan and northern India in the same general period but with a differing initial distribution and therefore a differing initial time-value. There can be little doubt that the use of iron came from Persia, where the metal had been known for some

¹ G. R. Sharma, *The Excavations at Kaushāmbī 1957-59* (Allahābād, 1960), pp. 18-20.

² B. B. Lal in *Ancient India*, no. 5 (1949), p. 79.

³ *Indian Archaeology*, 1958-9, pp. 2 and 54; G. R. Sharma, *The Excavations at Kaushāmbī 1957-59*, p. 13.

⁴ See above, p. 34, note 4.

⁵ H. D. Sankalia, B. Subbarao, S. B. Deo, *The Excavations at Maheshwar and Navdatoli 1952-53* (Baroda, 1958), pp. 68 and 132.

centuries, and was popularized if not introduced in the subcontinent by the extension of Achaemenid power first into Gandhāra and then to the Indus in the latter half of the sixth century B.C. (see p. 34). The use of coinage was doubtless a secondary result of the same intrusion. On the other hand, the invention of Northern Black Polished Ware, whatever its inspiration and its exact technique, must be ascribed to the Gangetic cities which had already come into being on a considerable scale during the preceding Bronze or Copper Age and were ready to adopt iron and subsequently coinage without any serious economic revolution. To these cities the two innovations acted as a spur to new civic enterprise and to new experiments in craftsmanship, of which the Northern Black Polished Ware was one. A primary date in the fifth century B.C. for the first production of this Gangetic ware within the *doāb* fits well into the picture as the evidence now stands, but needs confirmation. No earlier date is at present arguable.

But that is not to say that wherever it is found the Northern Black Polished Ware is necessarily of the same early date. The twenty sherds from Taxila, the dozen sherds now from Chārsada, the one sherd from Swāt—all in the far north-west—are ill matched against the hundred sherds from a single trial-excavation at the Gangetic site of Hastināpura. They suggest a reluctant, secondary spread from the main source; and history does in fact provide the required context for this secondary movement.

The circumstance is sufficiently familiar. In 323 B.C. Alexander the Great died at Babylon and his empire fell asunder. The eastern portion, including part of Afghanistan, the North-West Frontier, and the Punjab, was wrested from his eastern successor Seleukos by the first of the great Mauryan rulers, Chandragupta, whose home was the little kingdom of Magadha on the Gangetic plain. Chandragupta had already, if the surviving accounts are to be believed, intrigued in the Punjab and had actually met Alexander there. Now, in or shortly after 305 B.C., his new Mauryan Empire swept like a flood across Alexander's tracks to the foot-hills of the Hindu Kush. Now for the first time the region with which we are concerned was integrated politically with the Gangetic plains. In spite of great distances, a measure of interchange between the north-west and the plains now became feasible if not inevitable.

It is then to this and the immediately succeeding period, *c.* 300–150 B.C., that I would ascribe the percolation of most of our scraps of Northern Black Polished Ware from the Ganges *doāb* into the far north-west, and in particular to Chārsada; always with the proviso that, since the *relative* dating of all our Chārsada material is fixed by careful stratification, any subsequent shifting of the central point can readily be accompanied by an equivalent adjustment throughout. In this ascription I am deliberately discounting the vague evidence of Taxila, where its excavator thought that the ware might be 'as early as the 4th century B.C.'. Indeed some of it might be even earlier, but we shall never know until the wholesale excavation of that site can be reviewed in the light of more modern methods. Meanwhile, the bias of the dozen sherds from Chārsada is in the opposite direction. In particular the seven sherds from the two latest rebuildings of the house on Ch. V are unquestionably much later. In our discussion of chronology (p. 35), it has already been observed that the bracket here adopted (*c.* 300–150 B.C.) fits in satisfactorily with

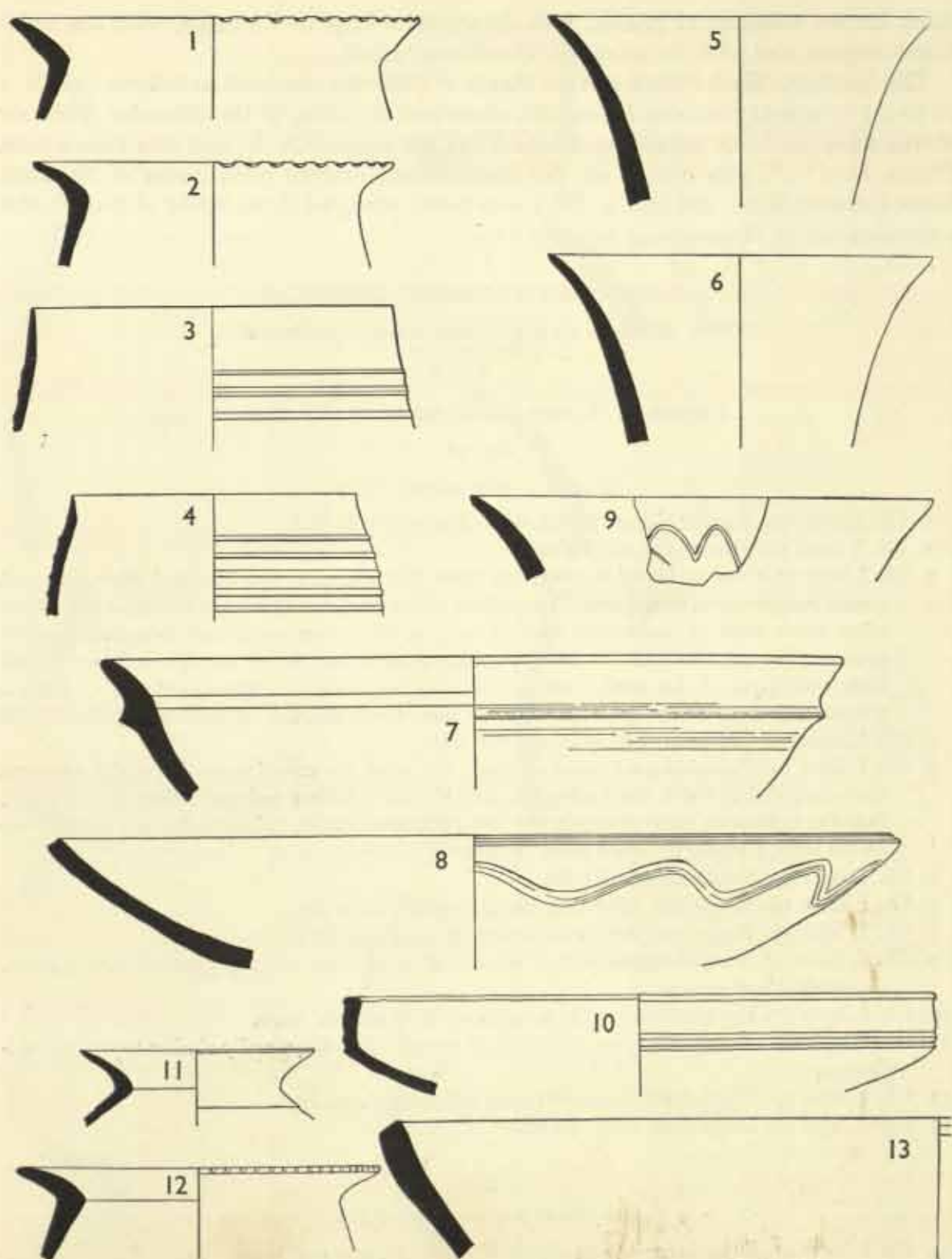


FIG. 11. Pottery from Ch. I (Bälä Hığār section, pl. II): 1-7 from layer 50; 8 from layer 49; 9-13 from layer 47. $\frac{1}{4}$.

other known moments or phases: with Alexander's siege of Chārsada, with the Indo-Greek régime, and with the so-called 'Gandhāra Period'.

The Northern Black Polished Ware sherds at Chārsada occurred as follows: on Ch. I in layers 20 and 21; two sherds from the disturbed top filling of the defensive ditch; six sherds from the latest rebuilding (Phase V) of the house, Ch. V, and two sherds from Phases III-IV. 'Lotus Bowls' are the constant and profuse companions of Northern Black Polished Ware; and on Ch. IV, Lotus Bowls occurred in the filling of Well E with a tetradrachm of Menander, *c.* 155-130 B.C.

(ii) STRATIGRAPHIC SERIES

(Note: All vessels are wheel-turned unless otherwise stated)

(a) Ch. I

(Section, pl. II, down the east face of the Bālā Hīṣār)

Fig. 11

(*c.* sixth to fifth century B.C.)

1. Ch. I, layer 50. Rippled rim of reddish ware. (See above, p. 37.)
2. Ch. I, layer 50. Rippled rim of buff ware.
3. Ch. I, layer 50. Cordoned bowl of 'soapy red' ware. (See above, p. 39.) This and other cordoned vessels suggest metal prototypes. The cordons belong to the 'soapy red' ware phase and do not occur above layer 33 (early third century B.C.), at which they are already being replaced by grooves. The latter continue in derivative mass-produced reddish wares, generally on a small scale, until layer 18, i.e. until *c.* 100 B.C. Consistently, they last throughout Ch. V. For the transition from cordon to groove, see fig. 18, nos. 76-77, &c.
4. Ch. I, layer 50. Cordoned bowl of 'soapy red' ware.
5. Ch. I, layer 50. Funnel-shaped vessel of 'soapy red' ware. No complete section of this type was recovered, and at first I was inclined to identify it as a hollow pedestal rather than as a rim. But after examining many examples and, amongst other factors, failing to find any sign of wear on the edge, I prefer to regard them as rims.
6. Ch. I, layer 50. Similar type and fabric.
7. Ch. I, layer 50. 'Soapy red' bowl with angular cordon below rim.
8. Ch. I, layer 49. 'Soapy red' bowl with shallow grooved (combed) wave-pattern.
9. Ch. I, layer 47. Funnel-shaped rim of 'soapy red' ware with roughly grooved wave-pattern. Carelessly wheel-turned.
10. Ch. I, layer 47. Upright-sided and grooved bowl of 'soapy red' ware.
11. Ch. I, layer 47. Sharply outcurved rim of small 'soapy red' pot, generally similar to the rippled-rim type.
12. Ch. I, layer 47. Rippled rim of reddish ware with rough exterior.
13. Ch. I, layer 47. Large plain bowl of 'soapy red' ware.

Fig. 12

(*c.* fifth to fourth century B.C.)

14. Ch. I, layer 47. Funnel-shaped and cordoned bowl of 'soapy red' ware.
15. Ch. I, layer 47. Cordoned bowl of 'soapy red' ware.

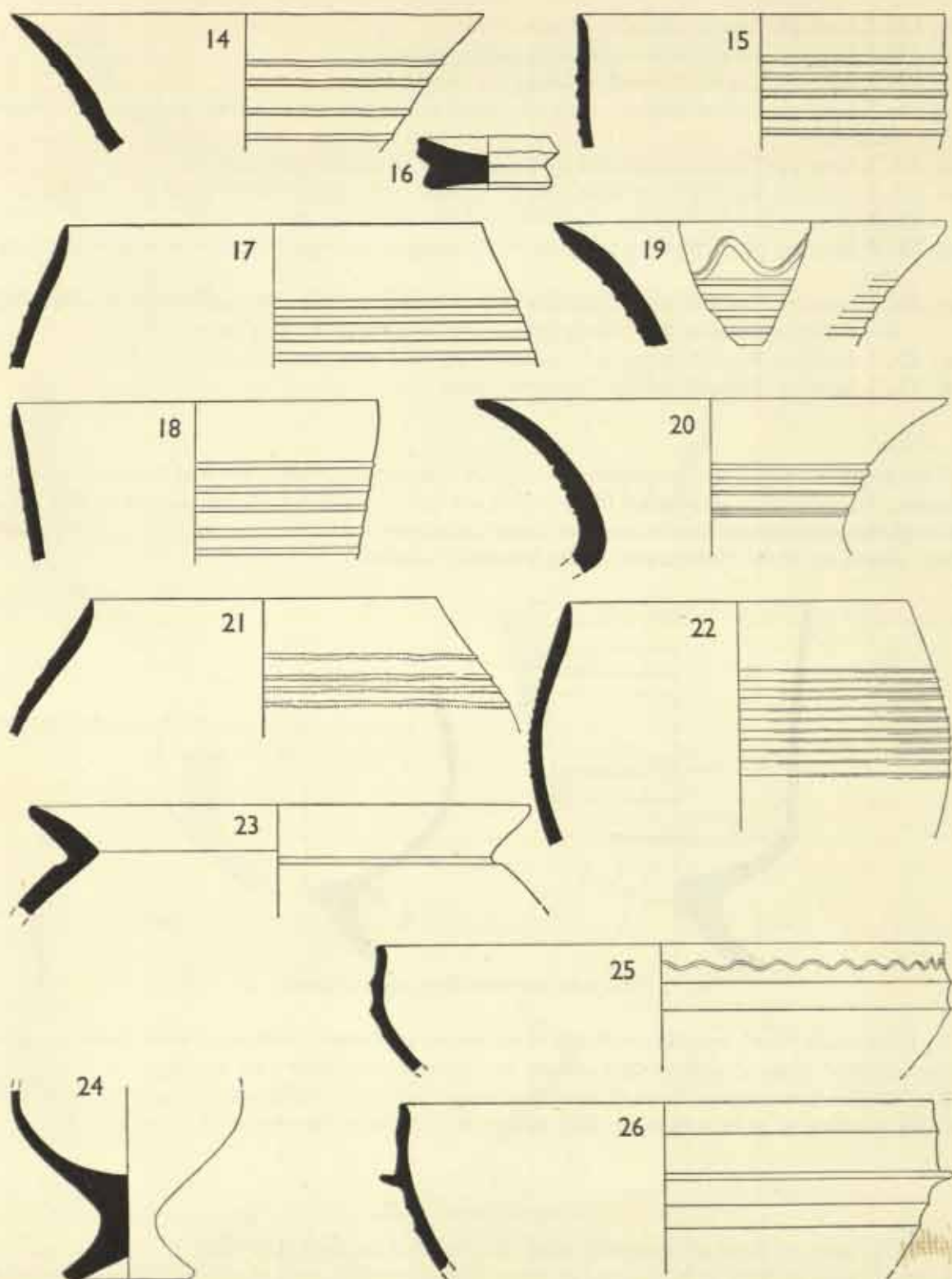
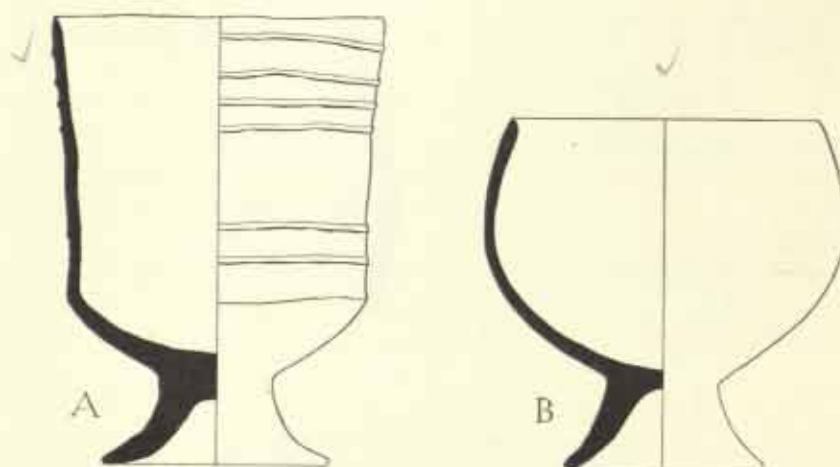


FIG. 12. Pottery from Ch. I: 14-15 from layer 47; 16-19 from layer 46; 20-21 from layer 44; 22-23 from layer 43; 24-26 from layer 41. $\frac{1}{2}$.

16. Ch. I, layer 46. Base of reddish buff ware.
17. Ch. I, layer 46. Large cordoned bowl of 'soapy red' ware.
18. Ch. I, layer 46. Cordoned vessel of 'soapy red' ware.
19. Ch. I, layer 46. Funnel-shaped vessel of 'soapy red' ware with cordons and grooved wave-pattern.
20. Ch. I, layer 44. Funnel-shaped and cordoned vessel of reddish buff ware.
21. Ch. I, layer 44. Irregularly cordoned bowl of 'soapy red' ware, probably made on a *tournette*.
22. Ch. I, layer 43, pit V. Corrugated or cordoned bowl of 'soapy red' ware.
23. Ch. I, layer 43, pit V. Sharply recurved rim of reddish buff ware. Related to the rippled-rim type.
24. Ch. I, layer 41. Pedestal base of globular bowl of 'soapy red' ware, probably made on a *tournette*.
For the type, compare the 'brandy-glass' bowl from Sarī Dheri, fig. 13 B.
25. Ch. I, layer 41. Bowl of 'soapy red' ware with grooved wavy line and indented shoulder.
26. Ch. I, layer 41. Flanged bowl of 'soapy red' ware.

Fig. 13

Two pots from Sarī Dheri, a mound, now rapidly disappearing, beside the road from Chārsada to Mardan. They illustrate pedestalled forms which are rarely found in complete section at Chārsada, although the pedestals are there a common feature. Compare the Chārsada type, fig. 12, 24. The Sarī Dheri vessels are in the Victoria and Albert Museum, London.

FIG. 13. Two pots from Sarī Dheri, near Chārsada. $\frac{1}{4}$.

A. Hand-made vessel, roughly cordoned, of micaceous and 'soapy' orange-red ware, probably early in the cordoned series. c. sixth to fifth century B.C. (Museum number: I.M. 29-1943.)

B. Globular 'brandy-glass' bowl of somewhat 'soapy' red ware, made probably on a *tournette*, and unlikely therefore to be later than the fifth century B.C. (Museum number: I.M. 30-1943.)

Fig. 14

(c. fourth century B.C.)

27. Ch. I, layer 41. Bowl of 'soapy red' ware with notched cordon below rim.
28. Ch. I, layer 41. Rim of large vessel of 'soapy red' ware. The rim is akin to the 'rippled rims' but bears an incised zigzag.

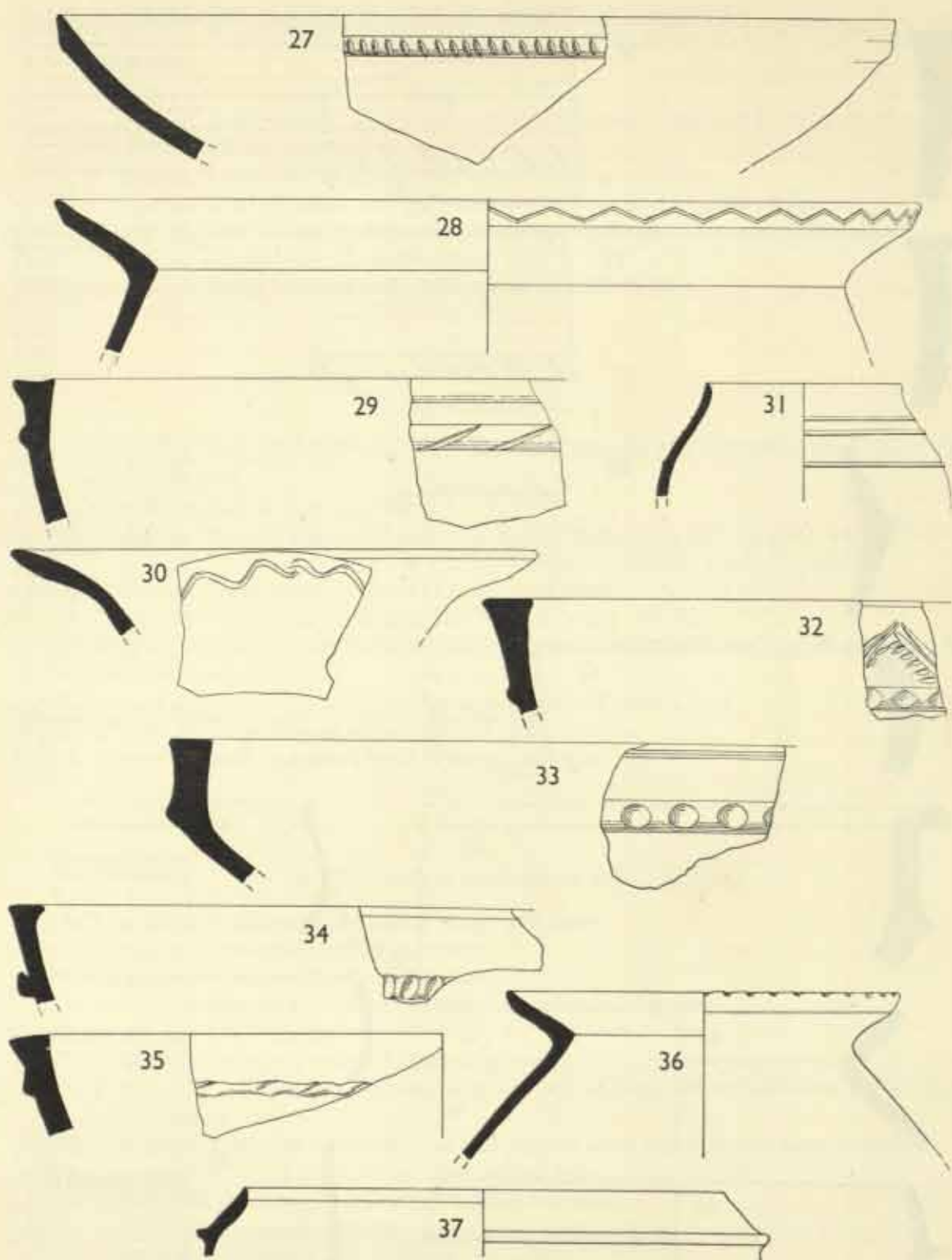


FIG. 14. Pottery from Ch. I: 27-30 from layer 41; 31-34 from layer 40; 35-37 from layer 39. $\frac{1}{4}$.

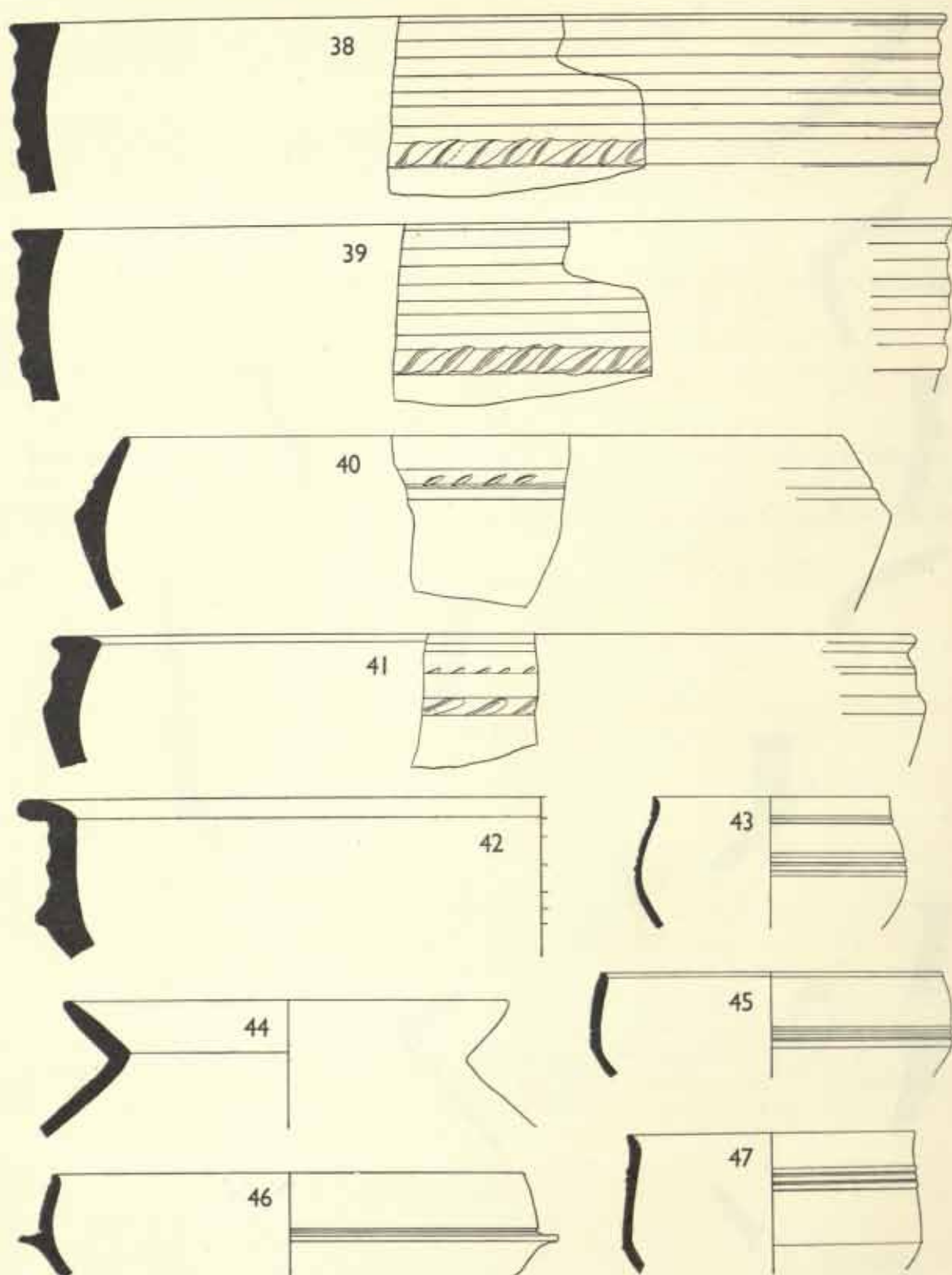


FIG. 15. Pottery from Ch. I: 38-40 from layer 39; 41-47 from layer 38. $\frac{1}{4}$.

29. Ch. I, layer 41. Bowl of 'soapy red' ware with obliquely notched cordon.
30. Ch. I, layer 41. Trumpet-shaped rim of 'soapy red' ware, sketchily wheel-turned and with incised wave.
31. Ch. I, layer 40. Cordoned vessel of 'soapy red' ware.
32. Ch. I, layer 40. Large bowl of 'soapy red' ware with clubbed or expanded rim, notched cordon, and elaborate incised chevron.
33. Ch. I, layer 40. Large bowl of 'soapy red' ware with dimpled cordon.
34. Ch. I, layer 40. Bowl of 'soapy red' ware with clubbed rim and notched cordon.
35. Ch. I, layer 39. Bowl of 'soapy red' ware with twisted cordon.
36. Ch. I, layer 39. Rippled rim of reddish ware.
37. Ch. I, layer 39. Inward-sloping and cordoned rim of reddish ware.

Fig. 15

(c. fourth century B.C.)

38. Ch. I, layer 39. Large bowl of 'soapy red' ware with clubbed rim and cordoned shoulder. One cordon is twisted.
39. Ch. I, layer 39. Similar type and fabric.
40. Ch. I, layer 39. Bowl of 'soapy red' ware with inward-sloping rim and obliquely notched cordon.
41. Ch. I, layer 38. Club-rimmed bowl of reddish ware with obliquely notched cordons.
42. Ch. I, layer 38. Large cordoned bowl of 'soapy red' ware.
43. Ch. I, layer 38. Small, well-made cordoned bowl of 'soapy red' ware.
44. Ch. I, layer 38. Sharply everted rim of buff ware, comparable with the 'rippled rim' type but without the notching.
45. Ch. I, layer 38. Grooved or cordoned bowl of 'soapy red' ware.
46. Ch. I, layer 38. Flanged bowl of pinkish buff ware.
47. Ch. I, layer 38. Small cordoned bowl of 'soapy red' ware.

Fig. 16

(c. fourth to third century B.C.)

48. Ch. I, layer 38. Small grooved bowl of 'soapy red' ware.
49. Ch. I, layer 38. Carinated bowl of grey ware.
50. Ch. I, layer 37. Carinated bowl of grey ware.
51. Ch. I, layer 37. Sharply everted rim of 'rippled rim' form; red ware.
52. Ch. I, layer 37. Grooved bowl of red ware.
53. Ch. I, layer 37. Internally grooved bowl of red ware.
54. Ch. I, layer 37. Large shallow club-rimmed bowl of buff ware with incised wave and obliquely grooved cordon.
55. Ch. I, layer 37. Large club-rimmed bowl with incised wave and obliquely slashed cordon.
56. Ch. I, layer 37. Grooved or cordoned vessel of red ware.
57. Ch. I, layer 36b. Sharply everted rim of reddish buff ware.
58. Ch. I, layer 36b. Carinated dish with sagger base; reddish ware.
59. Ch. I, layer 36b. Carinated dish of 'soapy red' ware.
60. Ch. I, layer 36b. Grooved bowl of 'soapy red' ware.

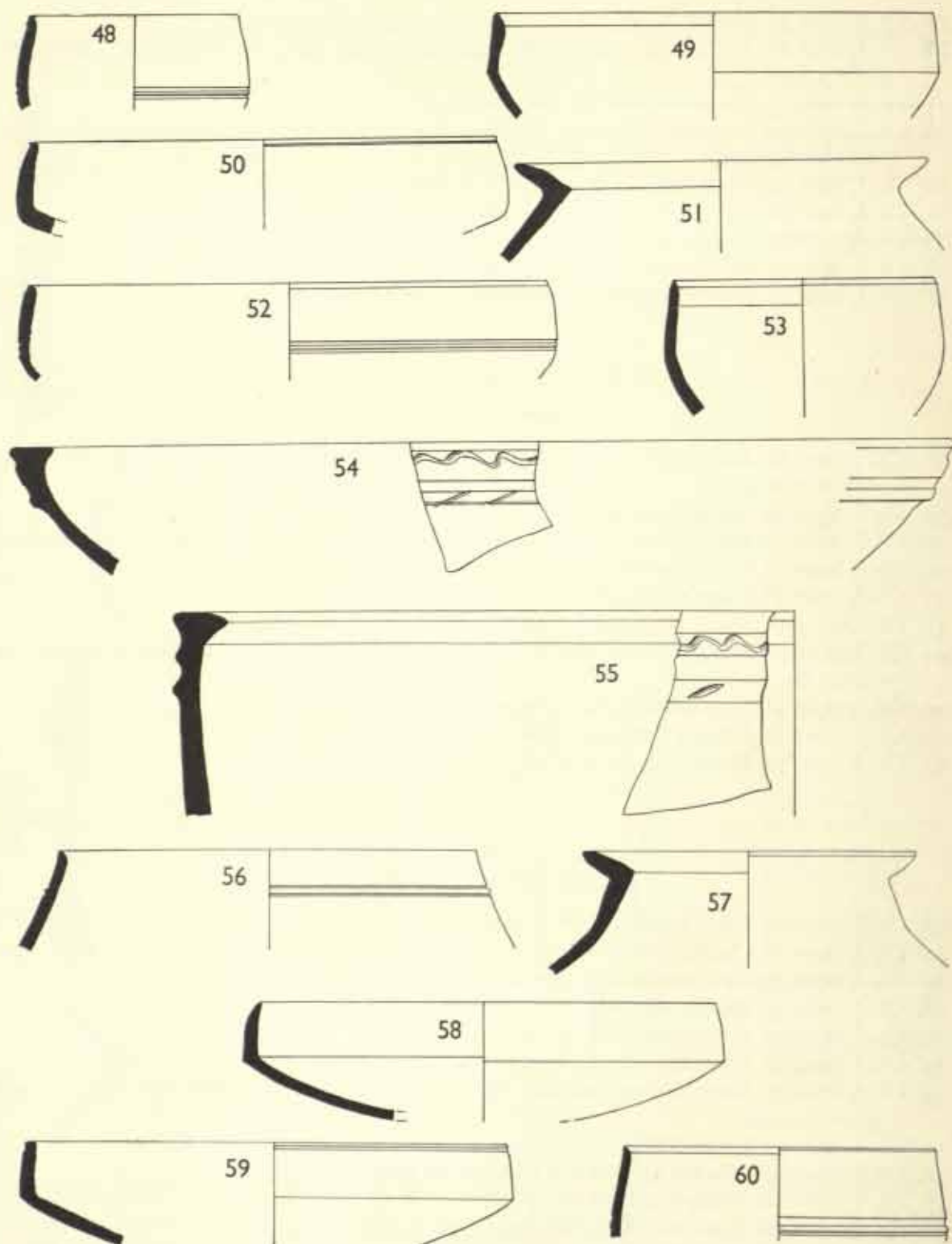


FIG. 16. Pottery from Ch. I: 48-49 from layer 38; 50-56 from layer 37; 57-60 from layer 36b. $\frac{1}{4}$.

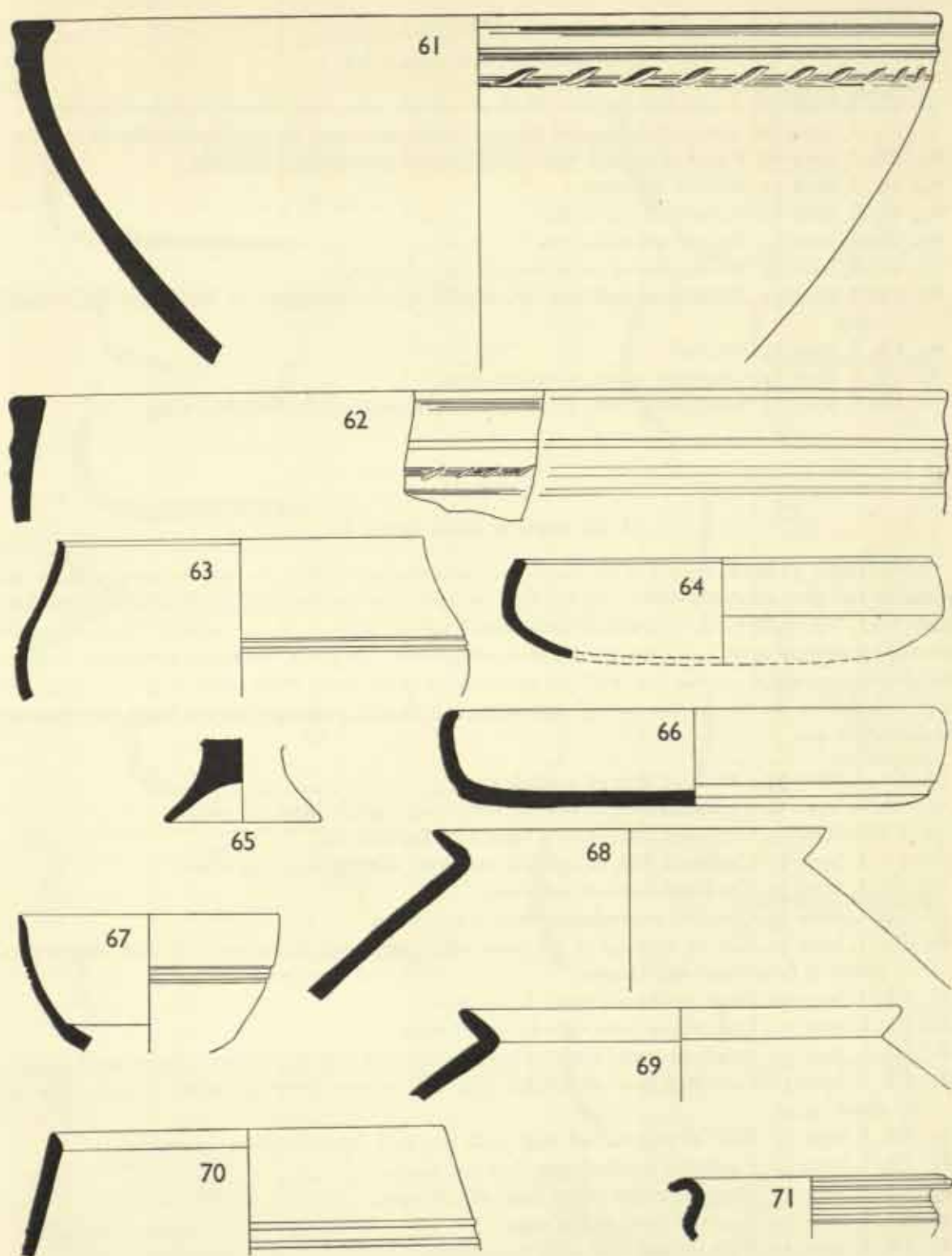


FIG. 17. Pottery from Ch. I: 61-62 from layer 36b; 63-65 from layer 35; 66-71 from layer 34. $\frac{1}{4}$.

Fig. 17

(c. fourth to third century B.C.)

- 61. Ch. I, layer 36b. Large club-rimmed bowl of reddish ware with obliquely slashed cordon.
- 62. Ch. I, layer 36b. Large club-rimmed bowl of 'soapy red' ware with obliquely slashed cordon.
- 63. Ch. I, layer 35. Vessel of reddish ware with grooved or cordoned shoulder.
- 64. Ch. I, layer 35. Dish of red ware.
- 65. Ch. I, layer 35. Pedestal of red ware.
- 66. Ch. I, layer 34. Dish of reddish ware.
- 67. Ch. I, layer 34. Small grooved or cordoned bowl of red ware.
- 68. Ch. I, layer 34. Sharply everted rim of reddish ware, comparable in form with the 'rippled' rims.
- 69. Ch. I, layer 34. Similar.
- 70. Ch. I, layer 34. Cordoned vessel of reddish ware.
- 71. Ch. I, layer 34. Small elaborately grooved and cordoned vessel of reddish ware.

Fig. 18

(c. late fourth to third century B.C.)

NOTE: Layer 33 marks the end of the 'soapy red' ware characteristic of the sixth to fourth century, and of the cordons often associated with it. By this time the fabric had been replaced by a harder, more machine-made ware, red, reddish, or reddish-buff often with a smooth but not 'soapy' surface. The cordons had mostly been replaced as early as layer 37 by a groove or grooves. The latter, when dual or multiple, produced the effect of a cordon or cordons flush with the main surface of the vessel. From layer 33 upwards the groove or grooves become the rule for this type of decoration, and there is a tendency for the bowls thus decorated to decrease in size.

- 72. Ch. I, layer 34. Carinated dish of reddish ware.
- 73. Ch. I, layer 34. Carinated dish of reddish ware with slightly incurved sides.
- 74. Ch. I, layer 34. Carinated dish of grey ware with beaded rim.
- 75. Ch. I, layer 33. Carinated dish of reddish ware with slightly incurved sides.
- 76. Ch. I, layer 33. Cordoned bowl of red ware.
- 77. Ch. I, layer 33. Grooved or cordoned bowl of red ware.
- 78. Ch. I, layer 33. Rim of large jar of red ware with blunt, sharply everted rim and lines of crescentic or finger-nail impressions.
- 79. Ch. I, layer 32. Small cordoned vessel of red ware.
- 80. Ch. I, layer 32. Dish of red ware with incurved sides.
- 81. Ch. I, layer 32. Small cordoned vessel of smooth red ware with trifid decoration painted in black.
- 82. Ch. I, layer 32. Carinated bowl of reddish ware with groove at the carination. For the type, see above, p. 40.
- 83. Ch. I, layer 32. Bowl of smooth red ware with rounded rim and grooved shoulder.
- 84. Ch. I, layer 32. Carinated bowl of smoothed red ware.
- 85. Ch. I, layer 32. Grooved or cordoned bowl of red ware.
- 86. Ch. I, layer 32. Grooved bowl of red ware.
- 87. Ch. I, layer 31. Dish of buff ware with sagger base.
- 88. Ch. I, layer 31. Carinated bowl of red ware with sagger base.

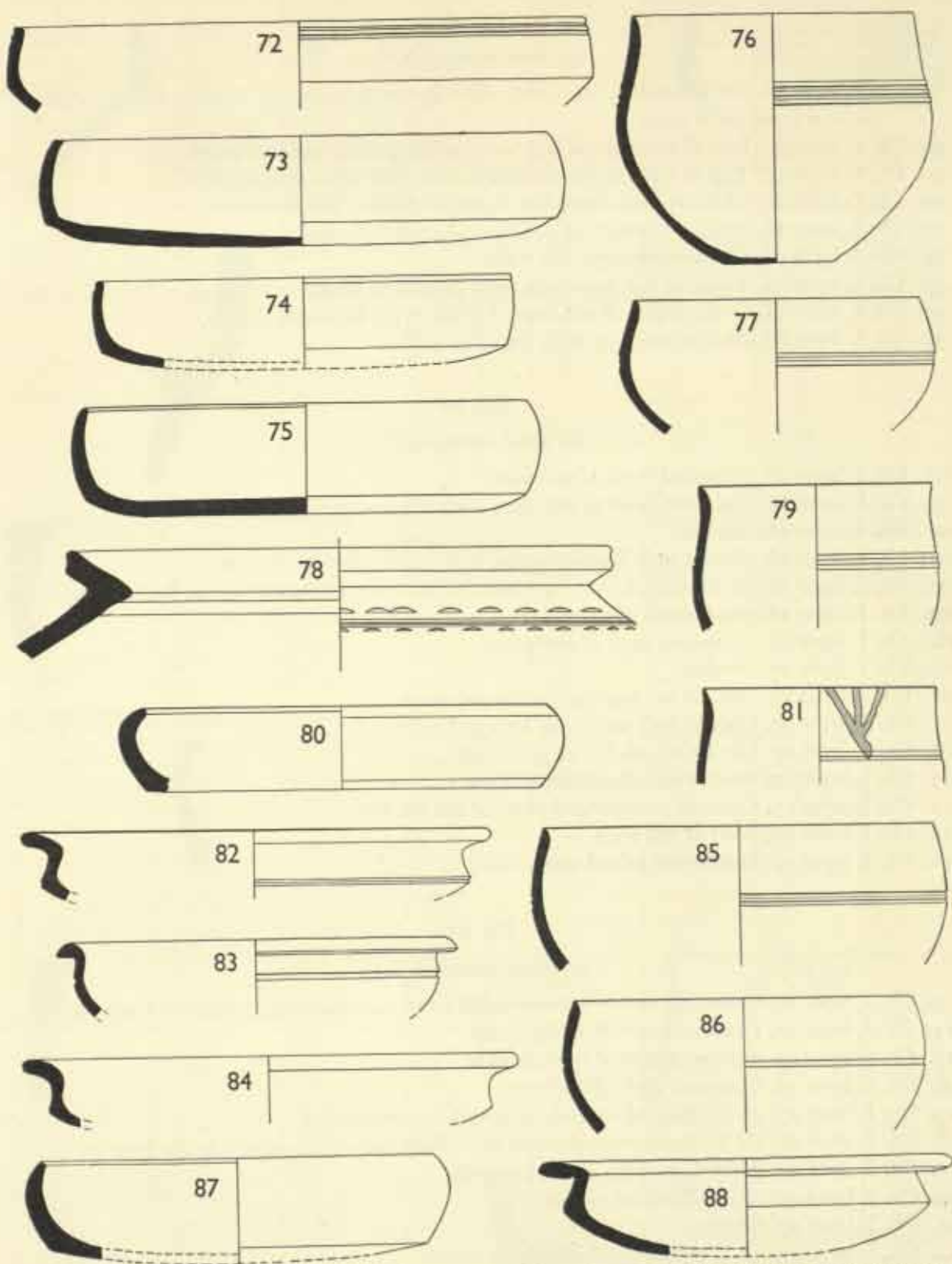


FIG. 18. Pottery from Ch. I: 72-74 from layer 34; 75-78 from layer 33; 79-86 from layer 32; 87-88 from layer 31. $\frac{1}{2}$.

Fig. 19

(c. *third century B.C.*)

- 89. Ch. I, layer 31. Pot of reddish ware with vertical rim and exterior scribed and roughened by bundles of sticks or straw.
- 90. Ch. I, layer 30. Rim of smooth red ware with trellis-pattern in black paint.
- 91. Ch. I, layer 30. Top of massive jar of reddish ware with flanged shoulder.
- 92. Ch. I, layer 29. Club-rimmed 'wavy line' bowl of reddish buff ware.
- 93. Ch. I, layer 28. Smaller example of similar type; reddish ware.
- 94. Ch. I, layer 28. Comparable type, red ware.
- 95. Ch. I, layer 28. Vessel of red ware with trifid pattern in black.
- 96. Ch. I, layer 28. 'Tulip Bowl' of red ware. For the type, see above, p. 40.
- 97. Ch. I, layer 28. Dish of red ware with incurved sides.

Fig. 20

(c. *third century B.C.*)

- 98. Ch. I, layer 28. Carinated bowl of red ware.
- 99. Ch. I, layer 28. Carinated bowl of red ware with trifid pattern in black paint on the rim.
- 100. Ch. I, layer 28. Similar.
- 101. Ch. I, layer 28. Similar with hatched triangles in black paint on the rim.
- 102. Ch. I, layer 28. Jar of reddish buff ware with vertical rim. Compare fig. 19, 89, from layer 31.
- 103. Ch. I, layer 28. Small bowl of red ware.
- 104. Ch. I, layer 27. Carinated bowl of red ware.
- 105. Ch. I, layer 27. Similar.
- 106. Ch. I, layer 27. Dish of red ware with inturned sides.
- 107. Ch. I, layer 27. Dish of buff ware with inturned sides.
- 108. Ch. I, layer 27. Similar to 106 but of buff ware.
- 109. Ch. I, layer 27. Similar but of reddish buff ware.
- 110. Ch. I, layer 27. Grooved or cordoned bowl of red ware.
- 111. Ch. I, layer 27. Bowl of red ware.
- 112. Ch. I, layer 27. Small bowl of red ware.

Fig. 21

(c. *third century B.C.*)

- 113. Ch. I, layer 27. Grooved bowl of red ware with trifid and quatrefoil pattern in black paint.
- 114. Ch. I, layer 27. Grooved bowl of reddish ware.
- 115. Ch. I, layer 27. Carinated dish of reddish ware.
- 116. Ch. I, layer 27. Carinated dish of buff ware.
- 117. Ch. I, layer 27, pit X. Dish of reddish ware with incurved sides.
- 118. Ch. I, layer 27, pit X. Bead-rimmed vessel of reddish ware with pattern in black paint.
- 119. Ch. I, layer 27. Reddish jar with slashed cordon.
- 120. Ch. I, layer 27. 'Tulip Bowl' of reddish ware.
- 121. Ch. I, layer 27. Similar.
- 122. Ch. I, layer 27, pit X. Small bowl of reddish ware.
- 123. Ch. I, layer 27. Small bowl of reddish ware.

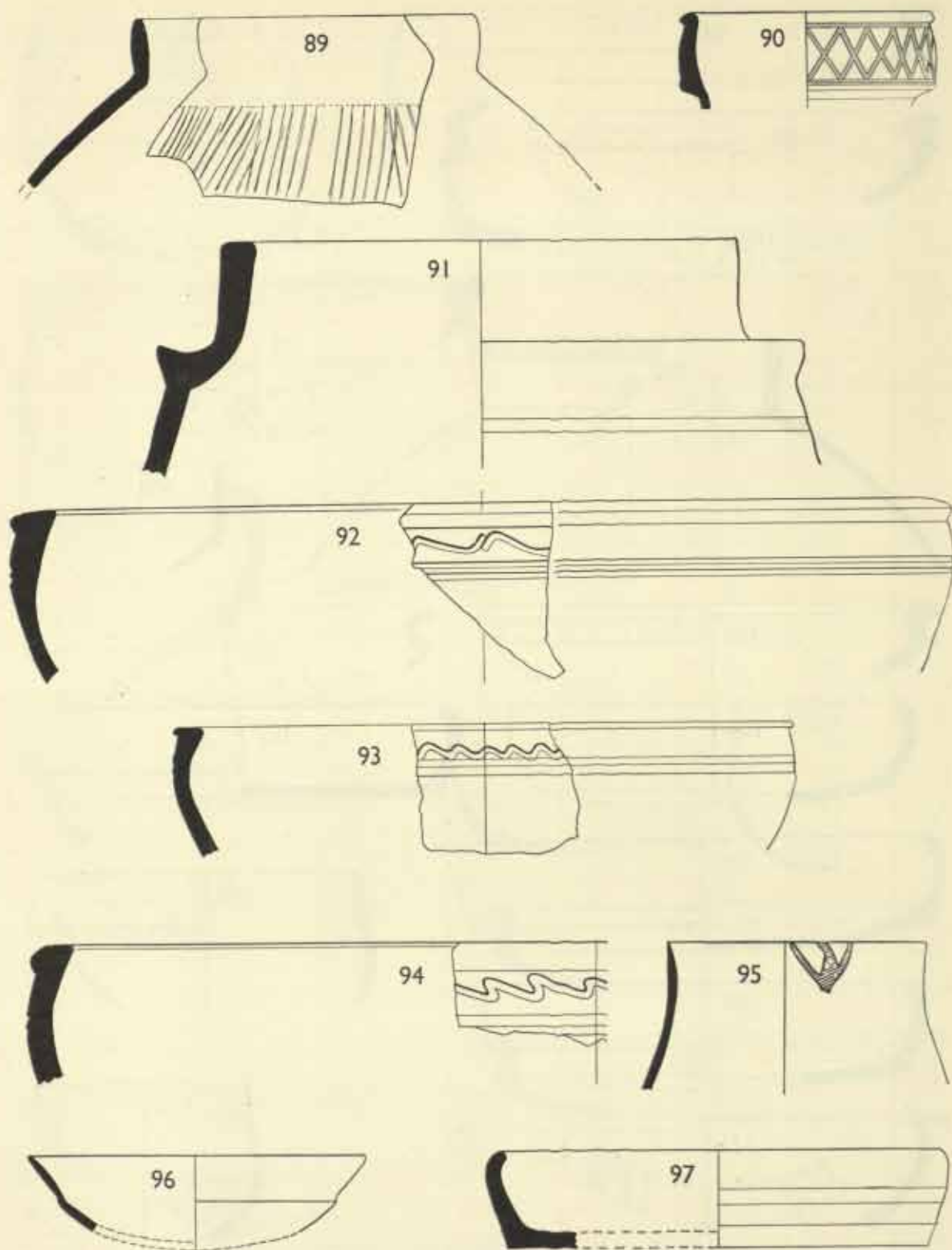


FIG. 19. Pottery from Ch. 1: 89 from layer 31; 90-91 from layer 30; 92 from layer 29; 93-97 from layer 28. $\frac{1}{4}$.

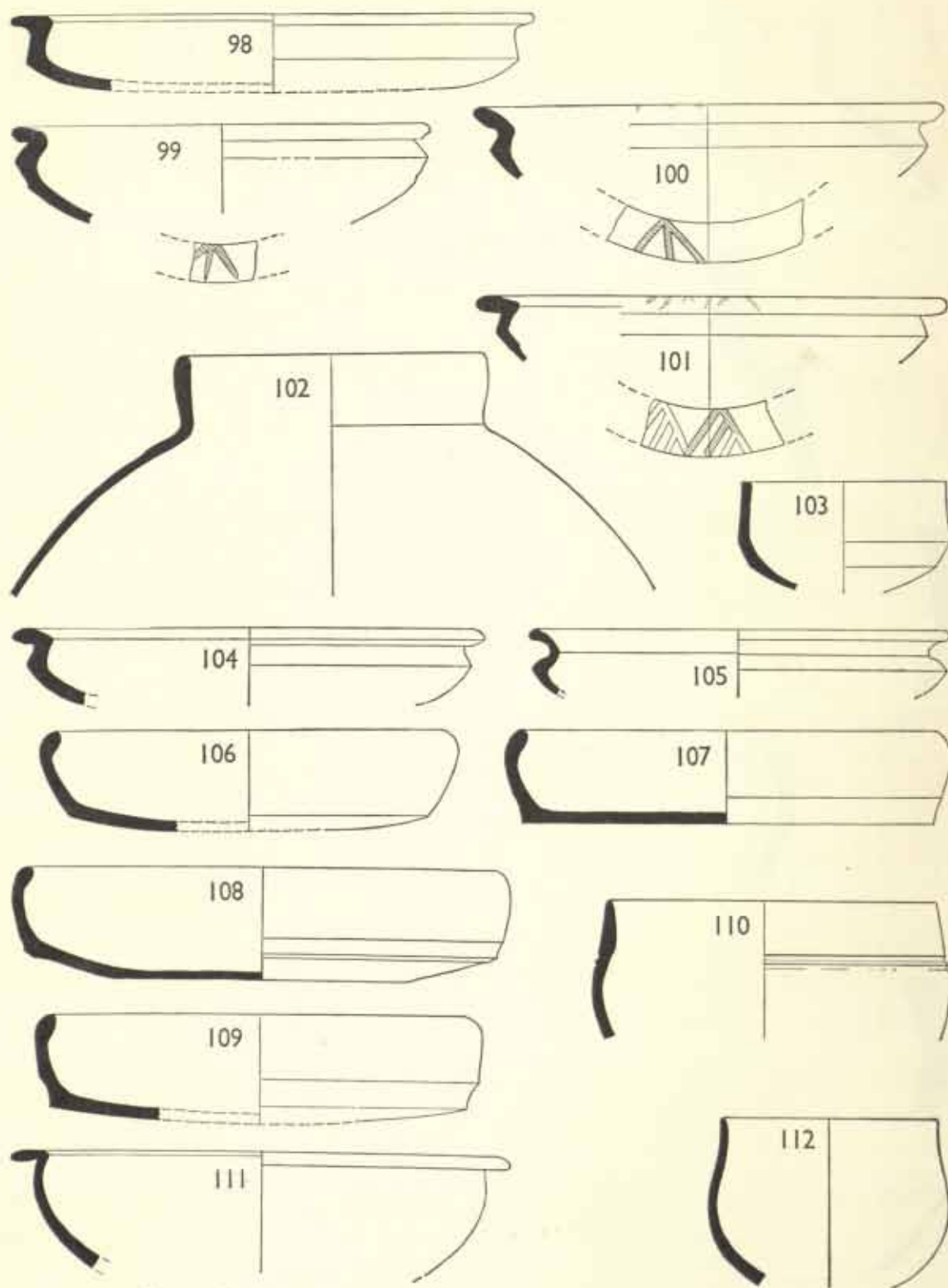


FIG. 20. Pottery from Ch. I: 98-102 from layer 28; 103-112 from layer 27. $\frac{1}{4}$.

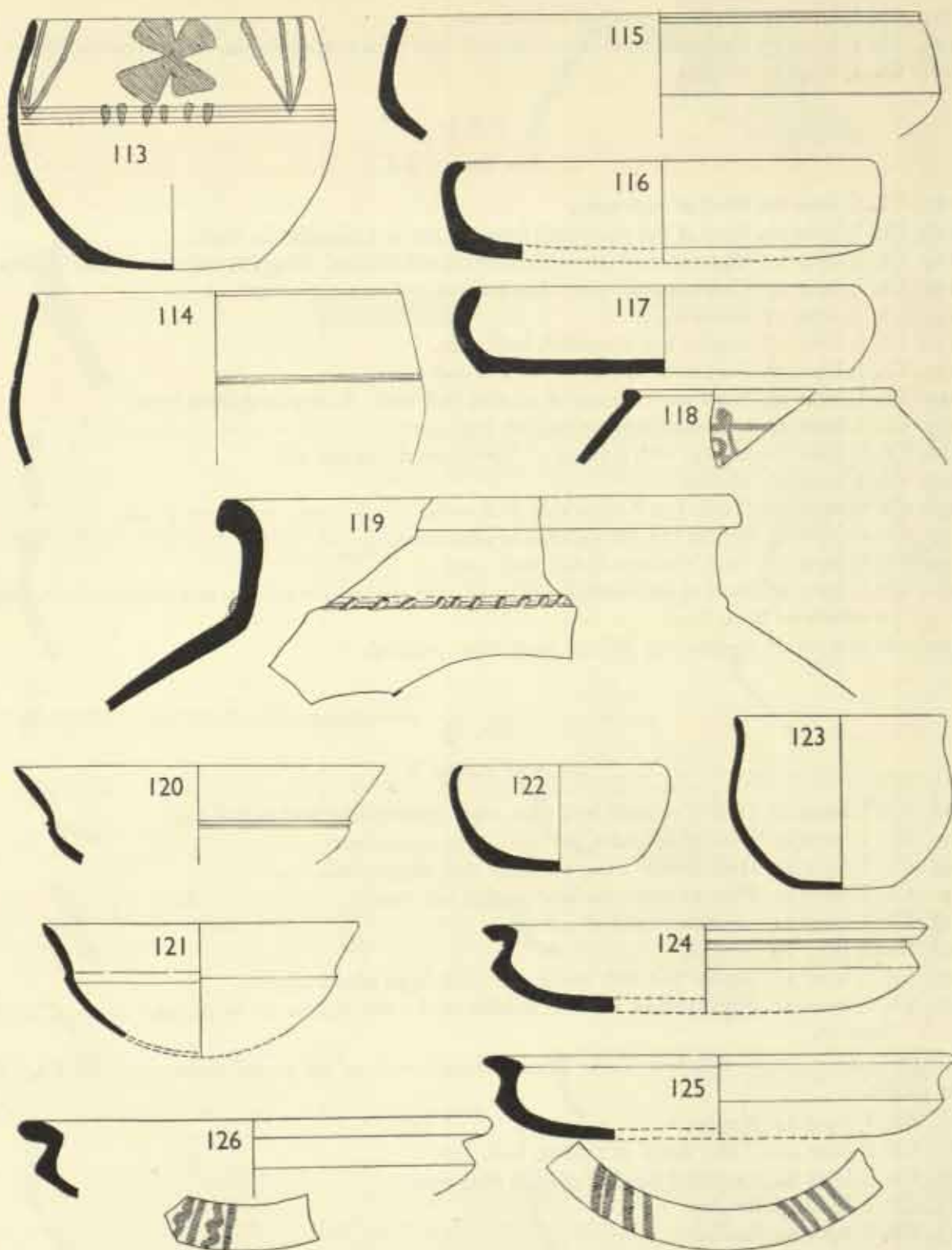


FIG. 21. Pottery from Ch. I, layer 27. $\frac{1}{2}$.

- 124. Ch. I, layer 27. Carinated bowl of reddish ware.
- 125. Ch. I, layer 27. Carinated bowl of reddish buff ware with quadruple black stripes across the rim.
- 126. Ch. I, layer 27. Similar.

Fig. 22

(c. third century B.C.)

- 127. Ch. I, layer 27. Bowl of buff ware.
- 128. Ch. I, layer 27. Bowl of red ware with frieze of hatched triangles in black.
- 129. Ch. I, layer 27. Club-rimmed, wavy-line bowl of reddish buff ware with angular notched cordon.
- 130. Ch. I, layer 27. Club-rimmed, wavy-line bowl of red ware.
- 131. Ch. I, layer 27. Similar.
- 132. Ch. I, layer 27. Similar but of reddish buff ware.
- 133. Ch. I, layer 26. Tiny bowl or cup of reddish buff ware.
- 134. Ch. I, layer 26. Small cup or lamp of reddish buff ware. A very long-lived type.
- 135. Ch. I, layer 26. Carinated bowl of reddish buff ware.
- 136. Ch. I, layer 26. Similar with a group of black lines across the rim.
- 137. Ch. I, layer 26. Similar.
- 138. Ch. I, layer 26. 'Tulip Bowl' of reddish buff ware. For the type, see above, p. 40.
- 139. Ch. I, layer 26. Similar but with cordoned carination.
- 140. Ch. I, layer 26. Plain bowl of reddish buff ware.
- 141. Ch. I, layer 26. Bowl of fine reddish buff ware, with grooves (or cordon) and clubbed rim having a transverse black line.
- 142. Ch. I, layer 26. Similar but without (surviving) painting.

Fig. 23

(c. third century B.C.)

- 143. Ch. I, layer 26. Dish of reddish buff ware with incurved rim and sagger base.
- 144. Ch. I, layer 25. Dish of red ware, probably with sagger base.
- 145. Ch. I, layer 25. Dish of buff ware, probably with sagger base.
- 146. Ch. I, layer 25. Plain semicircular bowl of fine red ware.
- 147. Ch. I, layer 25. Carinated bowl of red ware.
- 148. Ch. I, layer 25. Similar.
- 149. Ch. I, layer 25. Similar but with quadruple black lines across the rim.
- 150. Ch. I, layer 25. Club-rimmed bowl of reddish buff ware. Similar to fig. 22, 141 and 142, from layer 26.

NOTE: Layers 24-20 contained 'Lotus Bowls', characteristic of the second century B.C. on Ch. IV (see p. 40).

- 151. Ch. I, layer 24. Similar.
- 152. Ch. I, layer 24. 'Tulip Bowl' of reddish buff ware.
- 153. Ch. I, layer 24. Carinated bowl of reddish buff ware.
- 154. Ch. I, layer 24. Similar.
- 155. Ch. I, layer 24. Similar.
- 156. Ch. I, layer 24. Similar.
- 157. Ch. I, layer 24. Dish of reddish buff ware with incurved sides and sagger base.

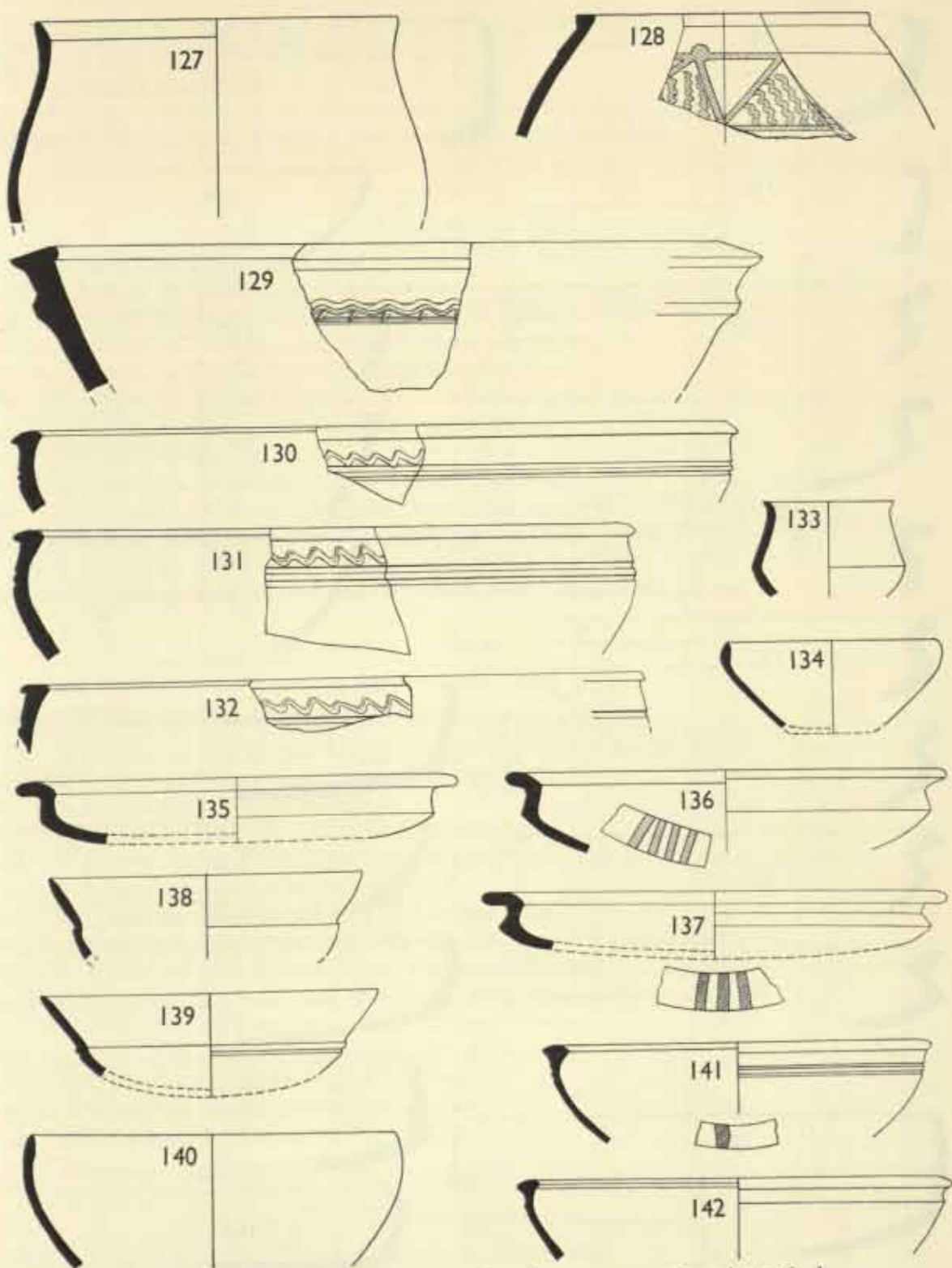


FIG. 22. Pottery from Ch. I: 127-32 from layer 27; 133-42 from layer 26. $\frac{1}{4}$.

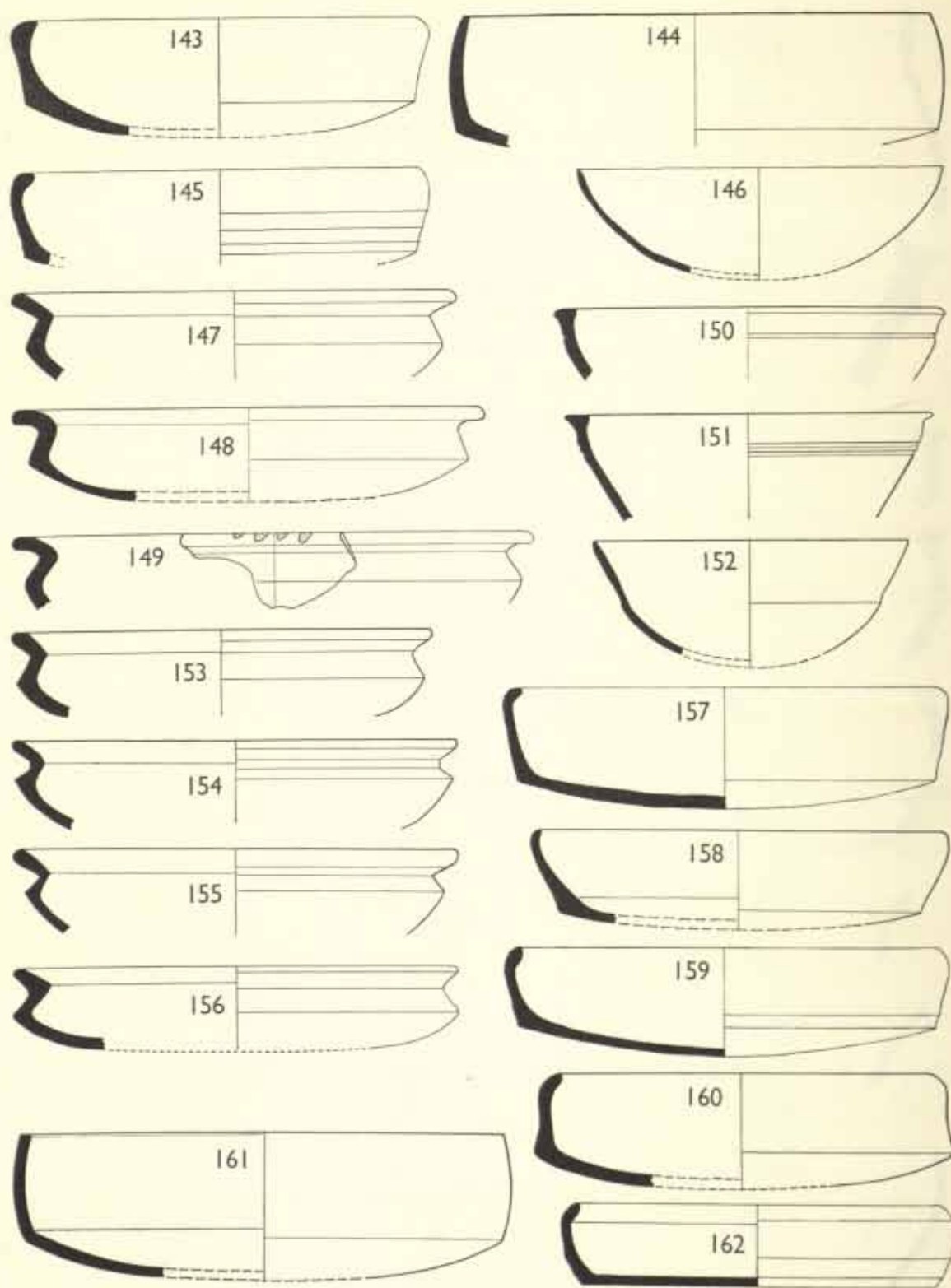


FIG. 23. Pottery from Ch. I: 143 from layer 26; 144-50 from layer 25; 151-62 from layer 24. $\frac{1}{2}$.

- 158. Ch. I, layer 24. Dish of buff ware with inturned sides and sagger base.
- 159. Ch. I, layer 24. Similar but of reddish ware.
- 160. Ch. I, layer 24. Similar.
- 161. Ch. I, layer 24. Dish of red ware with slightly convex sides and sagger base.
- 162. Ch. I, layer 24. Dish of reddish ware with angular incurved sides.

Fig. 24

(c. third century B.C.)

- 163. Ch. I, layer 24. Cordoned bowl of red ware.
- 164. Ch. I, layer 24. Grooved bowl of red ware.
- 165. Ch. I, layer 24. Grooved or cordoned vessel of reddish buff ware.
- 166. Ch. I, layer 24. Club-rimmed, wavy-line bowl of red ware.
- 167. Ch. I, layer 24. Similar but without the wavy line.
- 168. Ch. I, layer 24. Similar to 166.
- 169. Ch. I, layer 24. Grooved or cordoned bowl of red ware.
- 170. Ch. I, layer 24. Similar.
- 171. Ch. I, layer 24. Small cordoned bowl of red ware.
- 172. Ch. I, layer 24. Grooved or cordoned bowl of red ware with black trifold pattern.
- 173. Ch. I, layer 24. Plain, slightly corrugated vessel of reddish ware.
- 174. Ch. I, layer 23. Small vessel of reddish ware with S-profile.
- 175. Ch. I, layer 23. Small cup or lamp of reddish ware. Compare fig. 22, 134.

Fig. 25

(c. third to second century B.C.)

- 176. Ch. I, layer 23. Club-rimmed, wavy-line bowl of red ware.
- 177. Ch. I, layer 23. Cup of reddish ware, comparable with fig. 24, 175, &c.
- 178. Ch. I, layer 23. Club-rimmed bowl of red ware.
- 179. Ch. I, layer 23. Variant of same type.
- 180. Ch. I, layer 23. Bead-rimmed vessel of reddish ware.
- 181. Ch. I, layer 23. Small handled cup of red ware.
- 182. Ch. I, layer 23. Small jar of buff ware.
- 183. Ch. I, layer 23. Sherd of red ware with incised fishes.
- 184. Ch. I, layer 23. Bluntly carinated dish of buff ware with incurved sides.
- 185. Ch. I, layer 23. Dish of reddish ware with incurved sides.
- 186. Ch. I, layer 22. Carinated dish of buff ware with incurved sides.
- 187. Ch. I, layer 22. Carinated dish of reddish ware.
- 188. Ch. I, layer 22. Bluntly carinated dish of reddish ware.
- 189. Ch. I, layer 22. Carinated bowl of buff ware.
- 190. Ch. I, layer 22. Similar, of reddish buff ware.
- 191. Ch. I, layer 22. Similar, of red ware.

Fig. 26

(c. second century B.C.)

- 192. Ch. I, layer 22. Large flanged storage-jar of reddish ware.
- 193. Ch. I, layer 22. Jar neck of reddish buff ware.

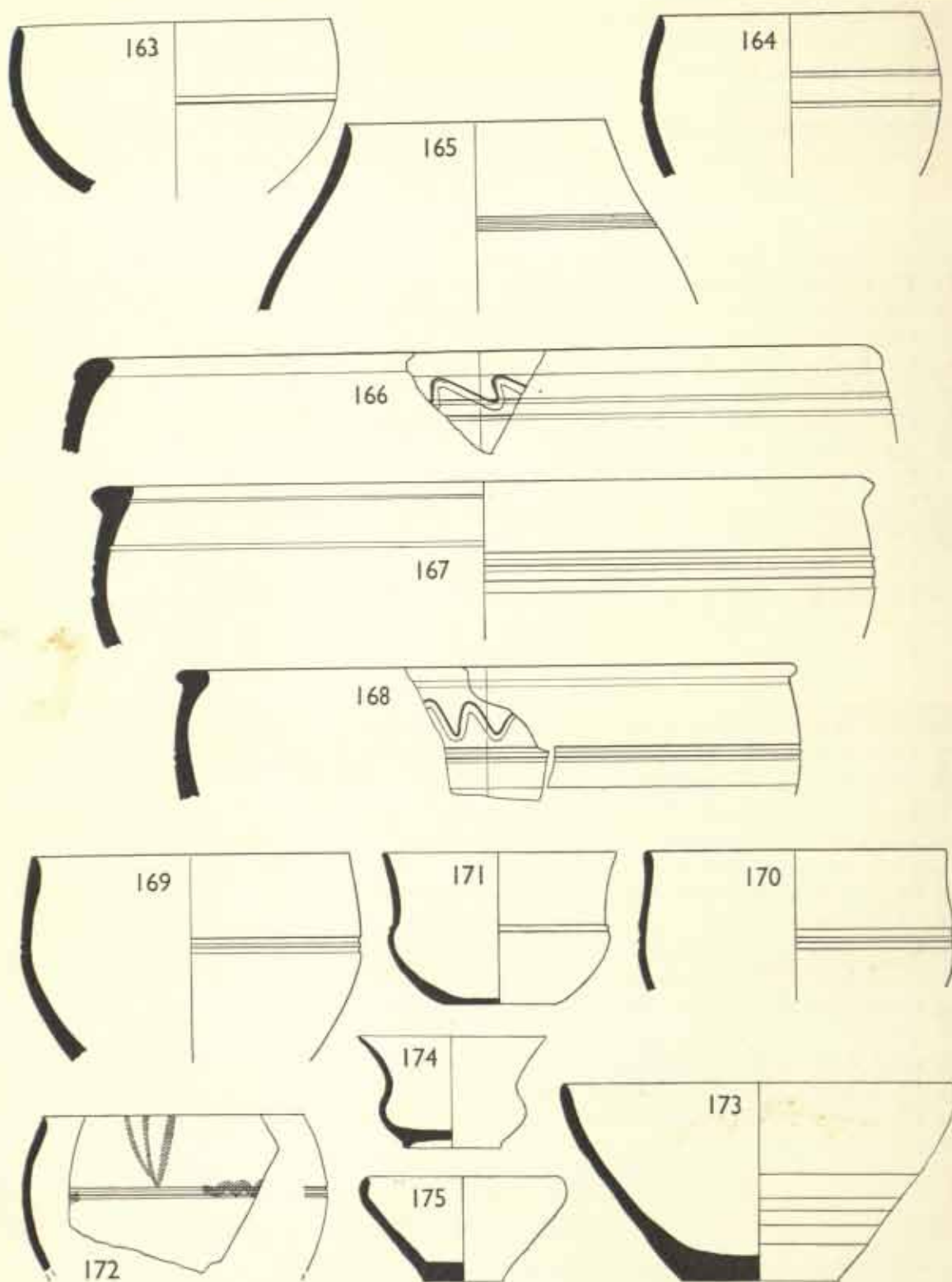


FIG. 24. Pottery from Ch. I: 163-73 from layer 24; 174-5 from layer 23. $\frac{1}{4}$.

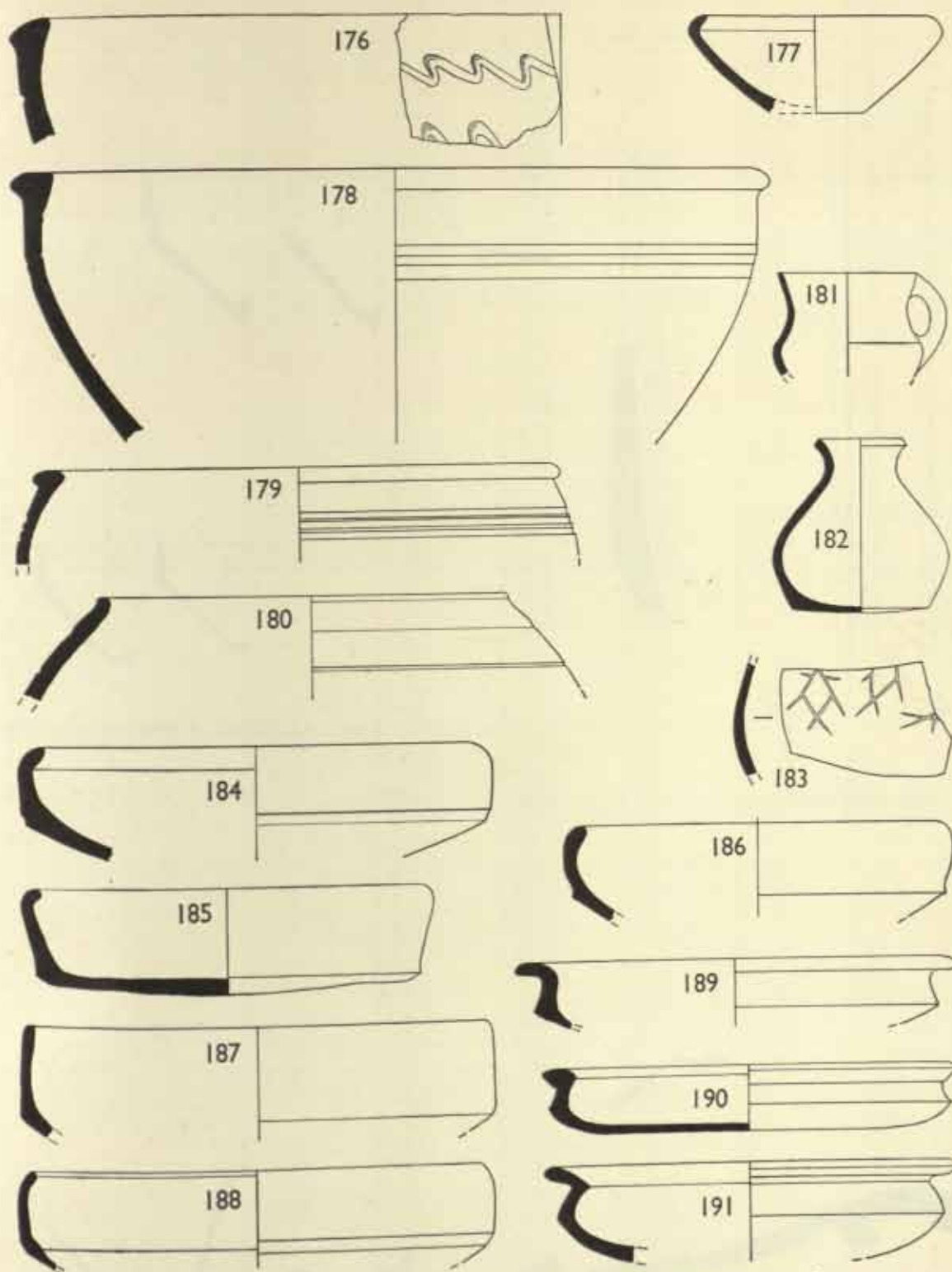


FIG. 25. Pottery from Ch. I: 176-85 from layer 23; 186-91 from layer 22. $\frac{1}{2}$.

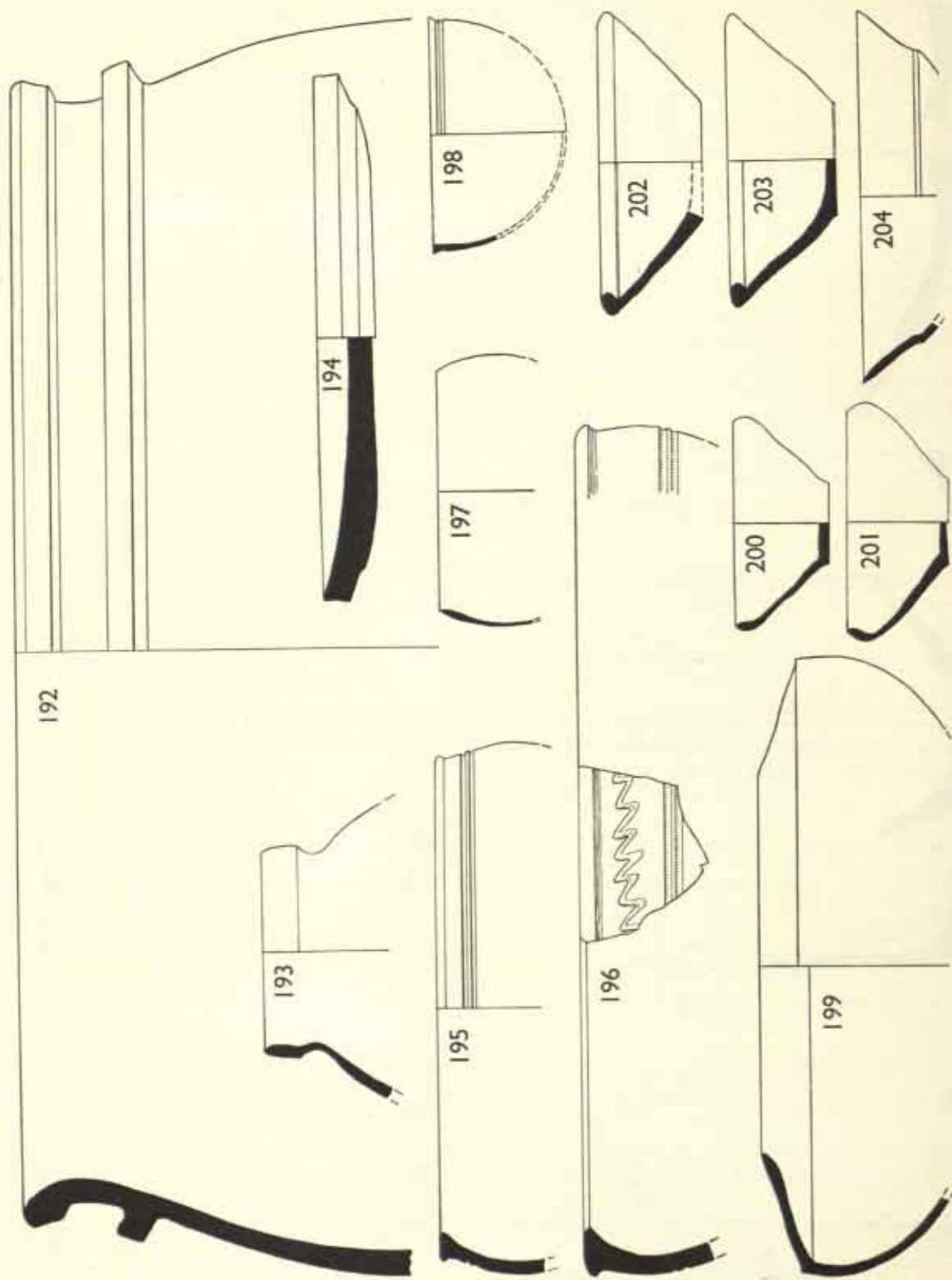


FIG. 26. Pottery from Ch. I, layer 22. 1/4.

- 194. Ch. I, layer 22. Thick flat dish of reddish buff ware.
- 195. Ch. I, layer 22. Club-rimmed and grooved bowl of red ware.
- 196. Ch. I, layer 22. Club-rimmed, wavy-line bowl of red ware.
- 197. Ch. I, layer 22. Bowl of unusually fine red ware.
- 198. Ch. I, layer 22. Fragment of reddish 'Lotus Bowl'. For this third- to second-century type, see above, p. 40.
- 199. Ch. I, layer 22. Carinated cooking-pot of reddish ware. Below the carination it is coated with soot.
- 200. Ch. I, layer 22. Small cup of reddish buff ware. For this long-lived type, compare fig. 25, 177, &c.
- 201. Ch. I, layer 22. Similar.
- 202. Ch. I, layer 22. Small bowl of reddish buff ware with inturned rim.
- 203. Ch. I, layer 22. Similar.
- 204. Ch. I, layer 22. 'Tulip Bowl' of reddish buff ware. (See above, p. 40.)

Fig. 27

(c. second century B.C.)

- 205. Ch. I, layer 22. Top of large jar of red ware.
- 206. Ch. I, layer 22. Small bowl of red ware; horizontal rim painted in black with cross-hatched triangles.

NOTE: Two sherds of Northern Black Polished Ware were found, respectively in layers 21 and 20, which also contained 'Lotus Bowls'.

- 207. Ch. I, layer 21. Similar.
- 208. Ch. I, layer 21. Small bowl of reddish buff ware with inturned rim.
- 209. Ch. I, layer 21. Pedestal of grey ware.
- 210. Ch. I, layer 21. Bowl of reddish buff ware with incurved sides.
- 211. Ch. I, layer 21. Grooved bowl of reddish buff ware.
- 212. Ch. I, layer 21. Small grooved bowl of red ware.
- 213. Ch. I, layer 21. Bowl of fine reddish ware with sharply grooved rim; 'Lotus Bowl' type. (See above, p. 40.)
- 214. Ch. I, layer 21. Similar.
- 215. Ch. I, layer 21. Grooved bowl of red ware with clubbed and rounded rim.
- 216. Ch. I, layer 21. Carinated dish of reddish buff ware.
- 217. Ch. I, layer 21. Similar.
- 218. Ch. I, layer 21. Comparable.
- 219. Ch. I, layer 21. Carinated dish of reddish buff ware with heavy, flat rim and grooved sides.
- 220. Ch. I, layer 21. Carinated bowl of reddish ware.
- 221. Ch. I, layer 21. Similar.

Fig. 28

(c. second century B.C.)

- 222. Ch. I, layer 20. Large bowl of red ware with black-painted rim.
- 223. Ch. I, layer 20. Cordoned bowl of red ware with inturned rim.
- 224. Ch. I, layer 20. Grooved bowl of red ware with inturned rim.
- 225. Ch. I, layer 20. Cordoned bowl of fine red ware.
- 226. Ch. I, layer 20. Small bowl of red ware with internally chamfered rim.

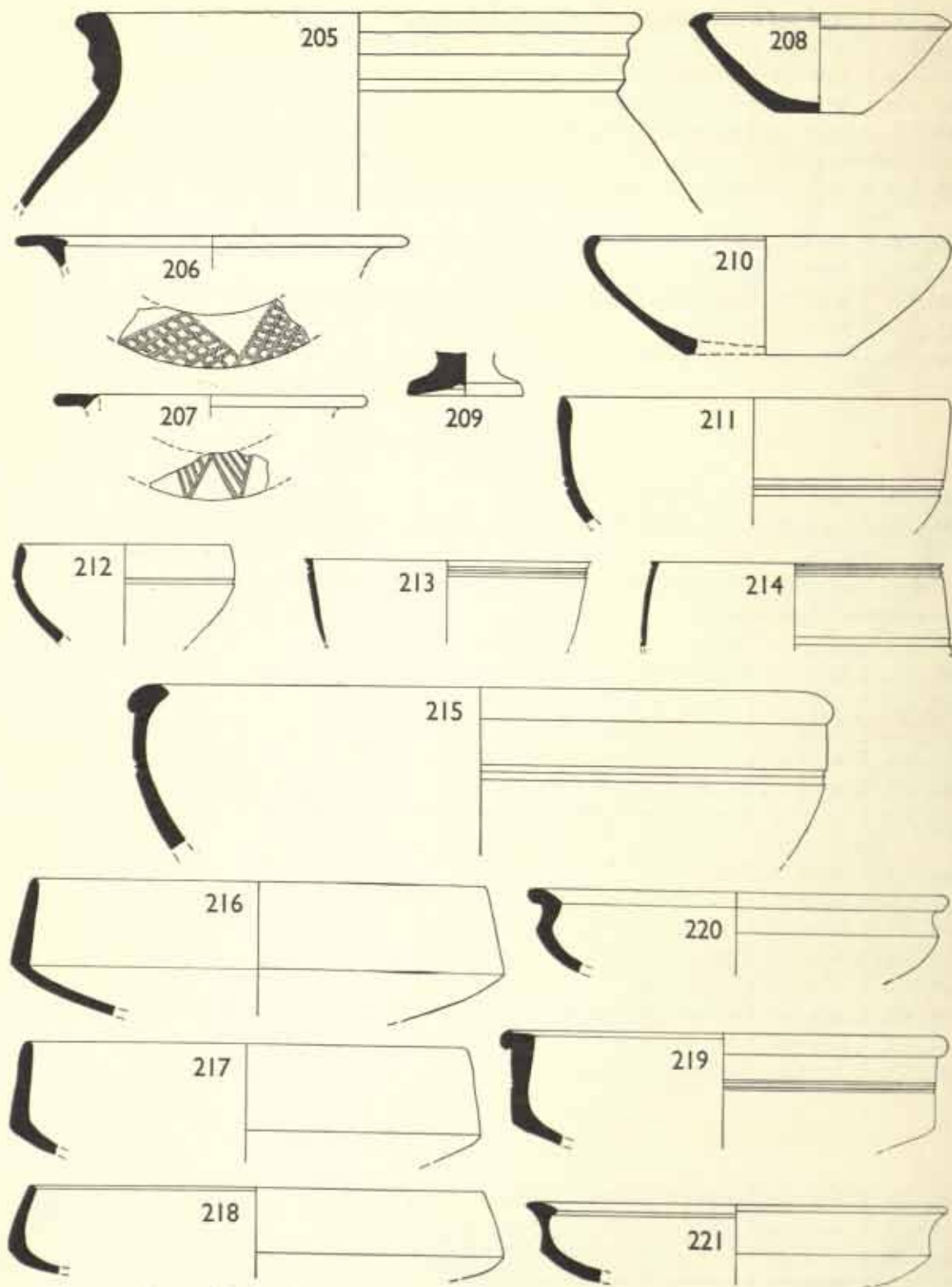


FIG. 27. Pottery from Ch. I: 205-6 from layer 22; 207-21 from layer 21. $\frac{1}{4}$.

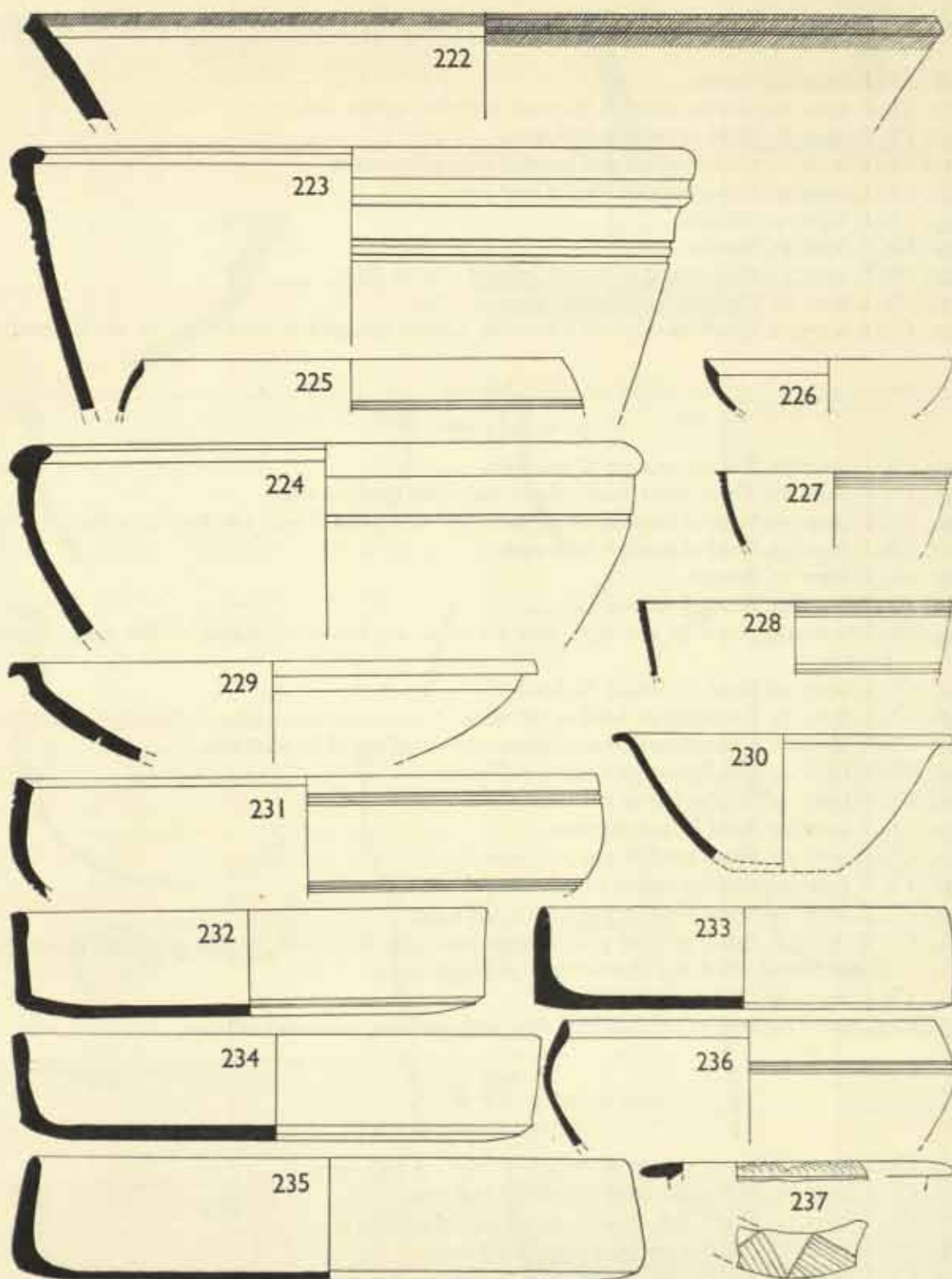


FIG. 28. Pottery from Ch. I, layer 20. $\frac{1}{2}$.

227. Ch. I, layer 20. Bowl of fine reddish ware with sharply grooved rim of the 'Lotus Bowl' type.
228. Ch. I, layer 20. Similar.
229. Ch. I, layer 20. Shallow bowl of red ware with flat, square rim.
230. Ch. I, layer 20. Bowl of reddish buff ware.
231. Ch. I, layer 20. Convex-sided and grooved dish of red ware.
232. Ch. I, layer 20. Straight-sided dish of buff ware.
233. Ch. I, layer 20. Similar.
234. Ch. I, layer 20. Similar.
235. Ch. I, layer 20. Dish of red ware with inward-sloping sides.
236. Ch. I, layer 20. Grooved bowl of red ware.
237. Ch. I, layer 20. Small bowl of red ware with hatched triangles in black paint on the flat rim.

Fig. 29

(c. second century B.C.)

238. Ch. I, layer 20. Top of large jar of red ware.
239. Ch. I, layer 20. Thick-sided vessel of red ware with grooved sides.
240. Ch. I, layer 19. Neck of large jar of reddish buff ware painted with two horizontal black bands.
241. Ch. I, layer 19. Bowl of reddish buff ware.
242. Ch. I, layer 19. Similar.
243. Ch. I, layer 19. Bowl of red ware.
244. Ch. I, layer 19. Sherd of red ware with frieze of impressed concentric circles within zigzag borders.
245. Ch. I, layer 19. Bowl of reddish buff ware.
246. Ch. I, layer 19. Semicircular bowl of red ware.
247. Ch. I, layer 19. Bowl of very fine red ware; almost of egg-shell thickness.
248. Ch. I, layer 19. Small grooved bowl of buff ware.
249. Ch. I, layer 19. Similar but of red ware.
250. Ch. I, layer 19. Bowl of fine red ware.
251. Ch. I, layer 19. Small bowl of fine red ware.
252. Ch. I, layer 19. Shallow saucer of red ware.
253. Ch. I, layer 19. Small bowl or cup of fine red ware.
254. Ch. I, layer 19. Small bowl of good orange ware. The rim, with its fine grooving, recalls the 'Lotus Bowls' which are characteristic of layers 24-20.
255. Ch. I, layer 19. Dish of reddish ware.
256. Ch. I, layer 19. Dish of reddish buff ware with incurved sides and roll-rim.

Fig. 30

(c. first century B.C.)

257. Ch. I, layer 19. Large variant of wavy-line bowl, of buff ware.
258. Ch. I, layer 19. Wavy-line bowl of reddish buff ware.
259. Ch. I, layer 19. Heavy roll-rimmed storage-jar of reddish ware.
260. Ch. I, layer 18. Angular pedestal-base of red ware.
261. Ch. I, layer 18. Tiny vessel of reddish buff ware.
262. Ch. I, layer 18. Top of jar of reddish ware with black-painted band.

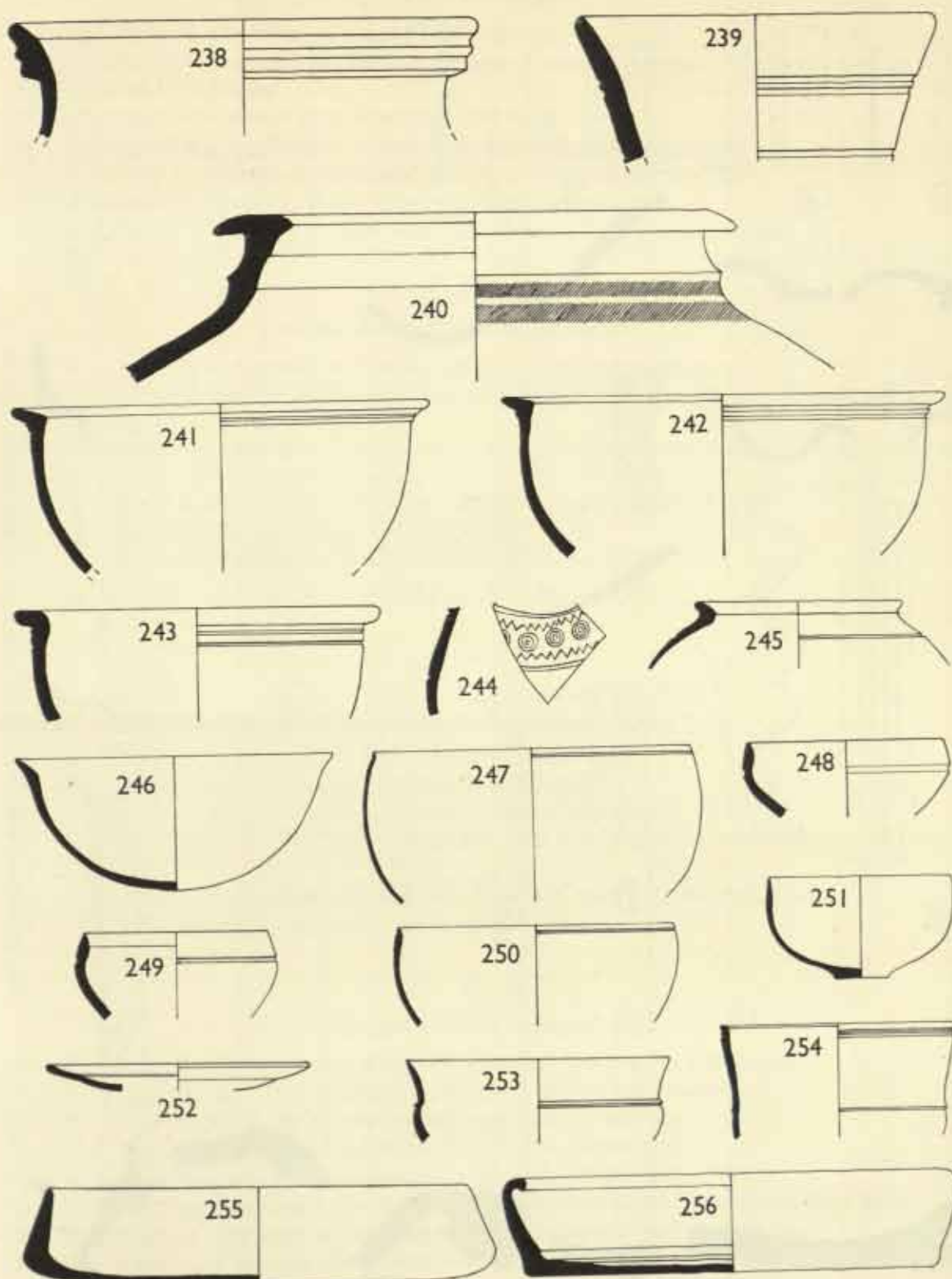


FIG. 29. Pottery from Ch. I: 238-9 from layer 20; 240-56 from layer 19. $\frac{1}{2}$.

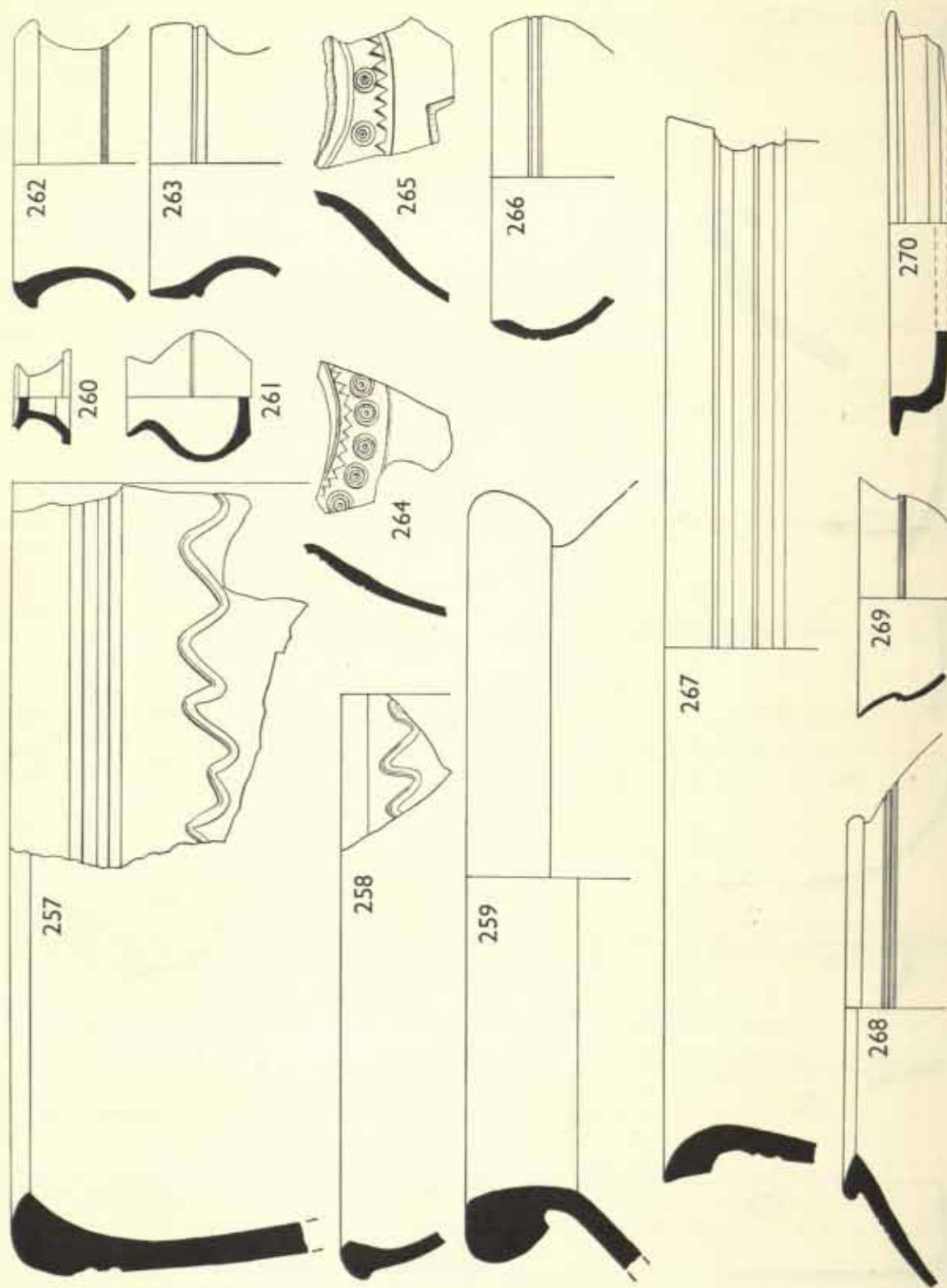


FIG. 30. Pottery from Ch. I: 257-9 from layer 19; 260-70 from layer 18. 1.

- 263. Ch. I, layer 18. Top of jar of reddish buff ware.
- 264. Ch. I, layer 18. Reddish buff sherd with frieze of stamped concentric circles and zigzags.
- 265. Ch. I, layer 18. Similar.
- 266. Ch. I, layer 18. Grooved bowl of reddish buff ware.
- 267. Ch. I, layer 18. Large bowl of reddish buff ware with grooved shoulder.
- 268. Ch. I, layer 18. Beaded rim of reddish buff ware with grooved shoulder.
- 269. Ch. I, layer 18. Modified 'Tulip Bowl' of reddish buff ware.
- 270. Ch. I, layer 18. Carinated bowl of reddish buff ware with grooved carination.

Fig. 31

(c. first century B.C. to second century A.D.)

- 271. Ch. I, layer 18. Large bowl of reddish buff ware with inturned rim.
- 272. Ch. I, layer 18. Bowl of reddish buff ware with flat rim. Compare fig. 23, 150-1 (layers 25-24), and fig. 29, 241-2 (layer 19).
- 273. Ch. I, layer 17. Large bowl of reddish ware with incised wave. Compare fig. 30, 267 (layer 18).
- 274. Ch. I, layer 17. Neck of jar of reddish ware.
- 275. Ch. I, layer 16, pit Y. Bowl with heavy rounded rim of reddish buff ware.
- 276. Ch. I, layer 16, pit Y. Clubbed rim of red ware.
- 277. Ch. I, layer 16. Flat-rimmed bowl of reddish buff ware.
- 278. Ch. I, layer 16. Large bowl of reddish ware with inturned rim.

Fig. 32

(c. first century B.C. to second century A.D.)

- 279. Ch. I, layer 16. Large jar of coarse reddish ware with smoothed wave.
- 280. Ch. I, layer 16. Large jar of reddish ware with incurved rim.
- 281. Ch. I, layer 16. Heavy, flat-topped rim of reddish ware.
- 282. Ch. I, layer 16, pit Y. Cooking-pot rim of reddish buff ware.
- 283. Ch. I, layer 16, pit Y. Small bowl of reddish buff ware with transverse black-painted lines on the rim.
- 284. Ch. I, layer 16, pit Y. Carinated dish of reddish buff ware with incurved sides.
- 285. Ch. I, layer 16, pit Y. Carinated bowl of reddish buff ware.

Fig. 33

(c. first to second century A.D.)

- 286. Ch. I, layer 16, pit Y. Jar of reddish buff ware with grooved rim and shoulder.
- 287. Ch. I, layer 16, pit Y. Jar of reddish buff ware with grooved shoulder.
- 288. Ch. I, layer 16, pit Y. Jar of reddish buff ware with grooved rim.
- 289. Ch. I, layer 16, pit Y. Jar of reddish buff ware with flanged rim.
- 290. Ch. I, layer 16, pit Y. Small bowl of red ware with bevelled rim.
- 291. Ch. I, layer 15. Large bowl of reddish buff ware with incurved rim and smoothed wave.
- 292. Ch. I, layer 15. Top of jar of red ware with two horizontal black-painted lines.
- 293. Ch. I, layer 15. Top of jar of red ware with grooved rim and shoulder and external traces of burning.
- 294. Ch. I, layer 15. Similar.

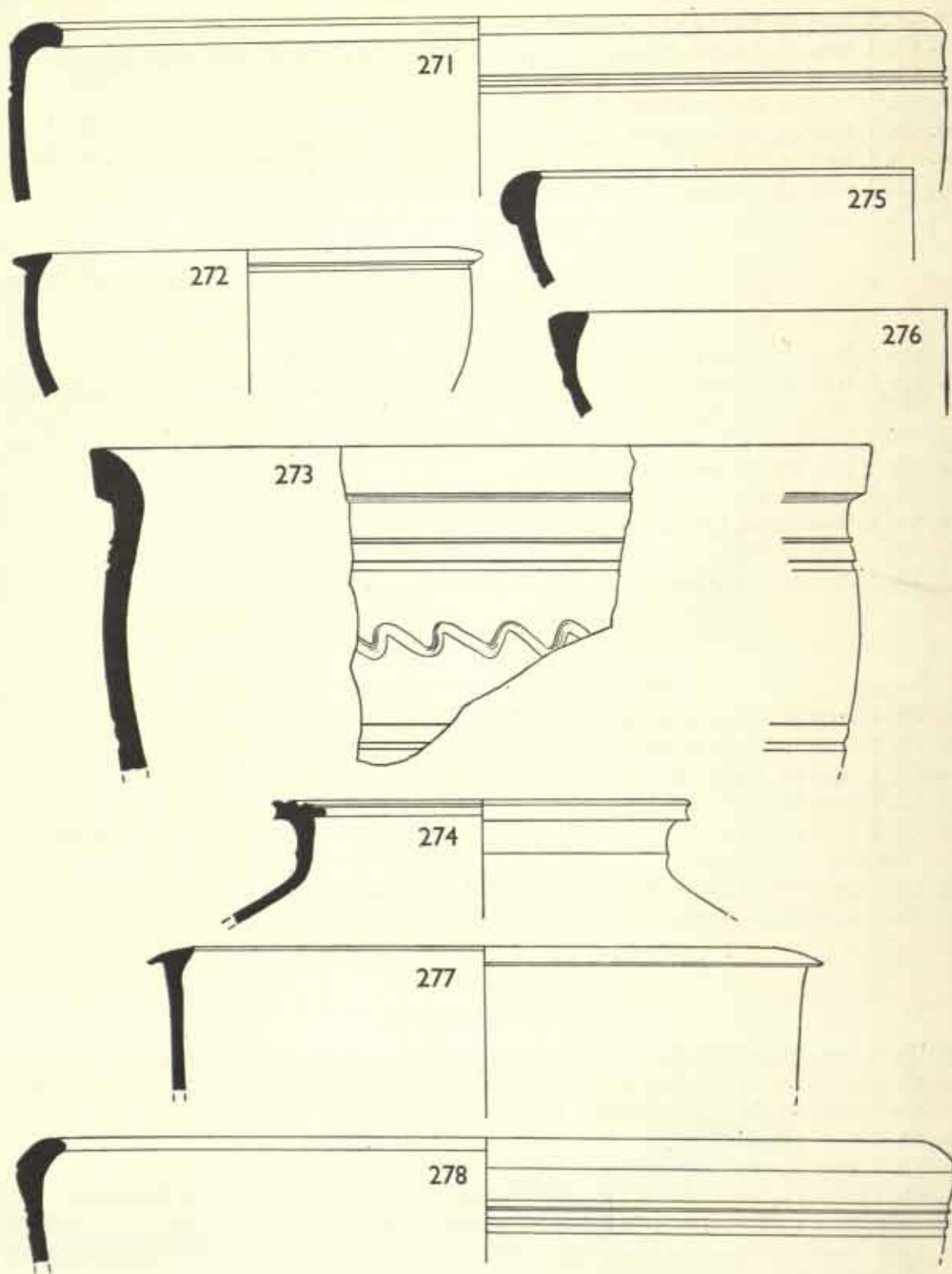


FIG. 31. Pottery from Ch. I: 271-2 from layer 18; 273-4 from layer 17; 275-8 from layer 16. $\frac{1}{4}$.

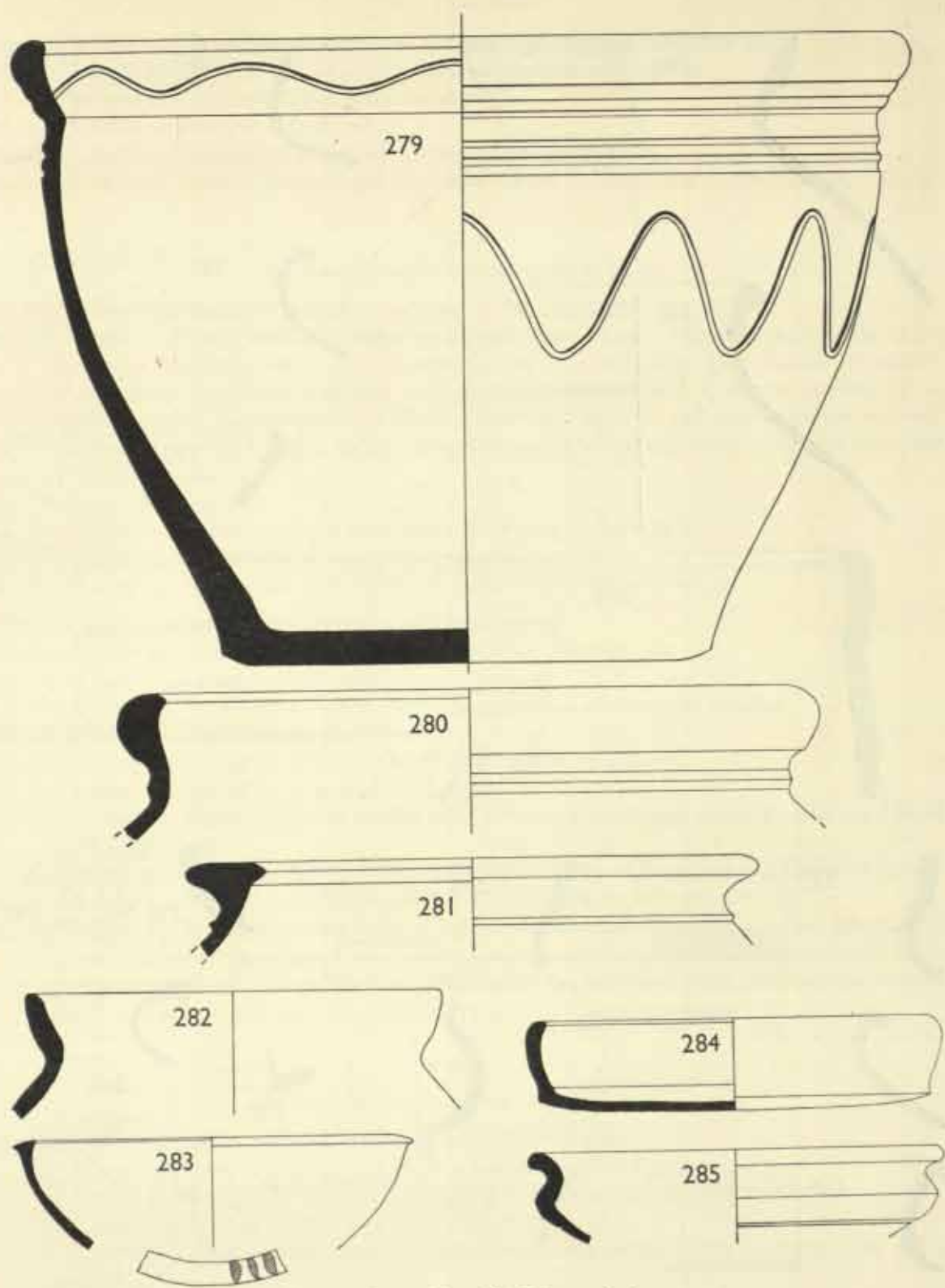


FIG. 32. Pottery from Ch. I, layer 16. 1/4.

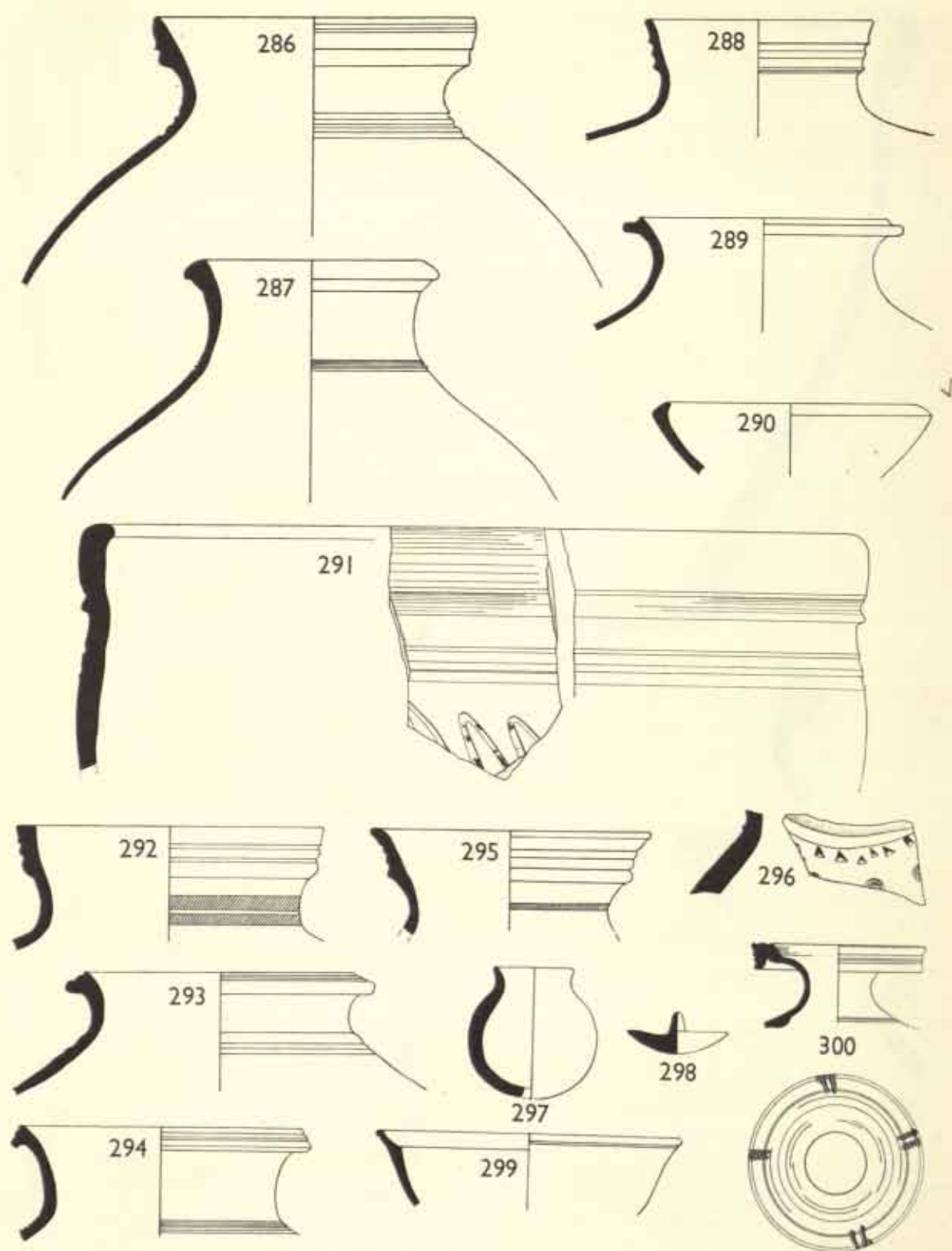


FIG. 33. Pottery from Ch. I: 286-90 from layer 16; 291-300 from layer 15. $\frac{1}{4}$.

- 295. Ch. I, layer 15. Top of jar with grooved rim and black-painted horizontal line.
- 296. Ch. I, layer 15. Sherd of red ware with stamped triangles and rosettes.
- 297. Ch. I, layer 15. Tiny pot of buff ware, hand-made.
- 298. Ch. I, layer 15. Stopper of buff ware.
- 299. Ch. I, layer 15. Small bowl of red ware with hollow-bevelled rim.
- 300. Ch. I, layer 15. Neck of bottle of red ware with slashes of black paint on top of rim.

Fig. 34

(c. second to fourth century A.D. or later)

- 301. Ch. I, layer 15. Red bowl with incurved rim.
- 302. Ch. I, layer 15. Small bowl of reddish ware with central knob. This feature, in spite of its distinctive character, has a wide distribution in time and place, from fourth-millennium Mesopotamia to medieval and later India. In the present instance it may be ascribed to the Kushāṇa period. An example from Taxila (Marshall, *Taxila*, ii. 428, and iii, pl. 126, no. 190) was found, blackened by fire, in the Jaulian monastery which was destroyed in the latter half of the fifth century A.D.
- 303. Ch. I, layer 15. Similar.
- 304. Ch. I, layer 15. Red spouted pot with rough decoration in black paint.
- 305. Ch. I, layer 15. Large bowl of reddish buff ware.
- 306. Ch. I, layer 15. Large bowl of reddish buff ware, comparable with no. 301.

NOTE: Layer 14 contained Gandhāra carvings (p. 35).

- 307. Ch. I, layer 14. Base of small bowl with central knob. See nos. 302-3.
- 308. Ch. I, layer 14. Pedestal of red ware.
- 309. Ch. I, layer 14. Top of jar of reddish buff ware with line of triangular notches.
- 310. Ch. I, layer 14. Top of bottle of red ware.
- 311. Ch. I, layer 14. Top of jar of reddish ware with vertical flanged rim.
- 312. Ch. I, layer 14. Top of jar of reddish buff ware.
- 313. Ch. I, layer 14. Flat rim of jar of reddish ware with triple black lines across the rim and a black band on the neck.
- 314. Ch. I, layer 14. Top of jar of reddish buff ware with sharply undercut rim and cordoned neck.
- 315. Ch. I, layer 14. Bowl of reddish ware with rim, comparable to nos. 301 and 306.
- 316. Ch. I, layer 14. Round-bottomed bowl of buff ware with transverse striations and intermittent lumps on the rim. These lumps are inchoate but probably derive from representations of doves. Compare an example from Hastināpura, ascribed to the early part of the Christian era (*Ancient India*, nos. 10 and 11 (1954-5), p. 69, fig. 23, 3).

Fig. 35

(c. second to fourth century A.D. and later)

- 317. Ch. I, layer 14. Dish of reddish buff ware with incurved sides.
- 318. Ch. I, layer 13. Bowl of reddish buff ware; a simple, long-lived type.
- 319. Ch. I, layer 13. Neck of jar of reddish ware with two horizontal black-painted lines.
- 320. Ch. I, layer 11. Bowl of reddish buff ware with clubbed rim.
- 321. Ch. I, layer 10. Base of small bowl of reddish ware with central knob. Compare, nos. 302-3 and 307.
- 322. Ch. I, layer 10. Large club-rimmed, wavy-line bowl of reddish ware.

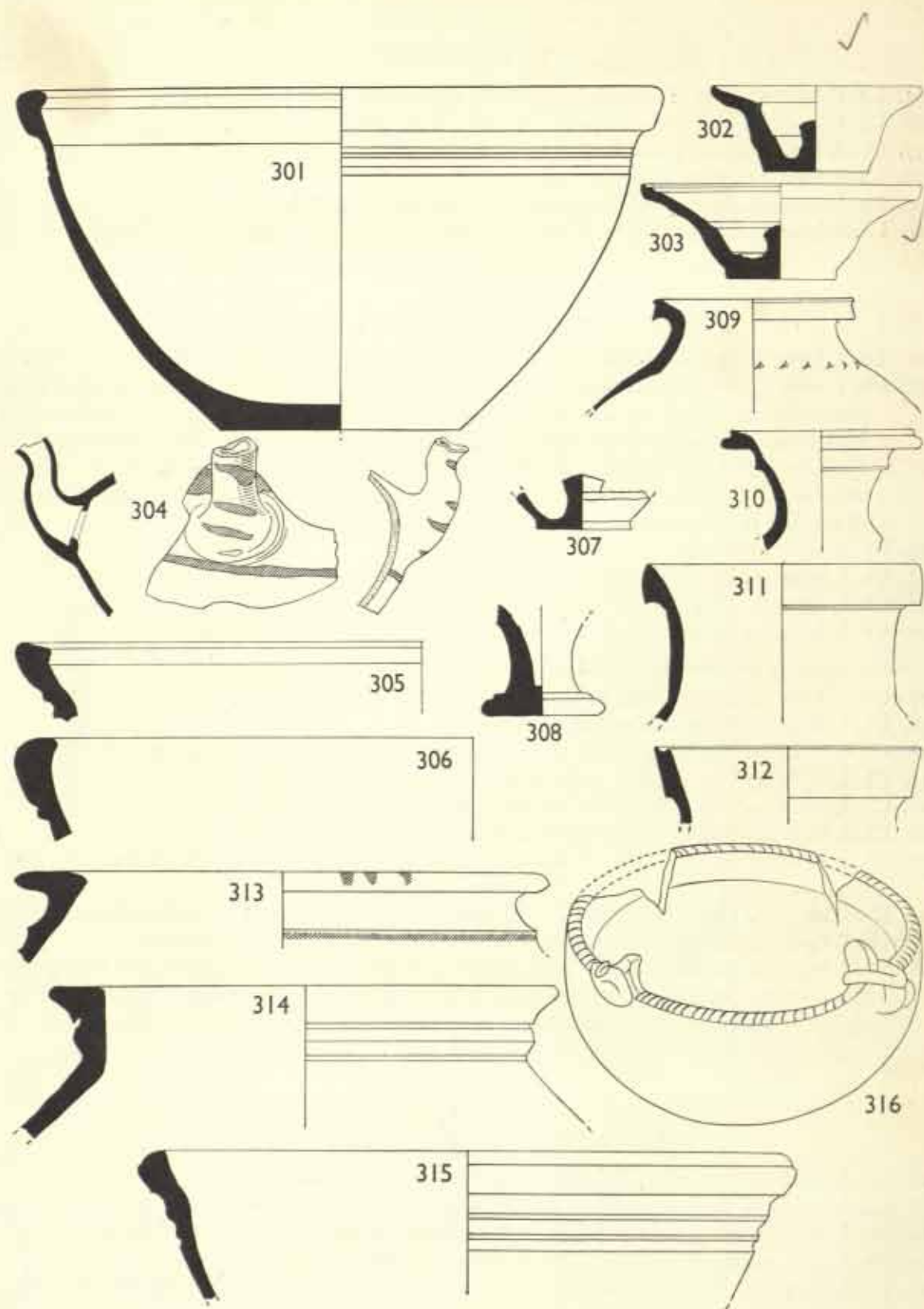


FIG. 34. Pottery from Ch. I: 301-6 from layer 15; 307-16 from layer 14. $\frac{1}{4}$.

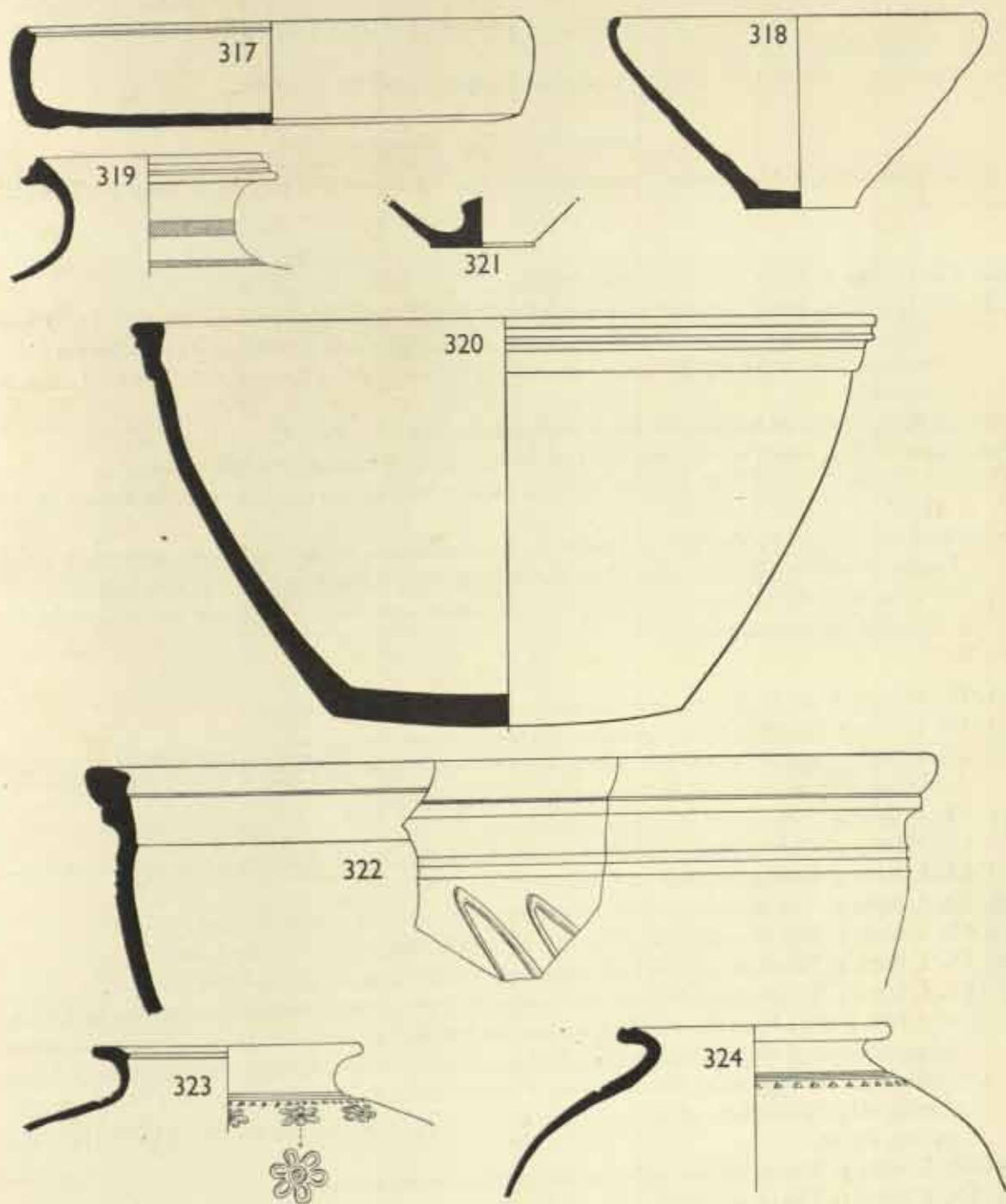


FIG. 35. Pottery from Ch. I: 317 from layer 14; 318-19 from layer 13; 320 from layer 11; 321-4 from layer 10. $\frac{1}{4}$.

323. Ch. I, layer 10. Reddish jar with triangular notches, triangles, and stamped rosettes round the shoulder.
324. Ch. I, layer 10. Reddish jar with triangular notches round the shoulder.

Muslim Period (figs. 36-39)

(Dating uncertain in the absence of associated coinage, but layers 6-4 may be as early as the eighth century A.D.)

Fig. 36

325. Ch. I, layer 7. Large bowl of coarse buff ware.
326. Ch. I, layer 6. Buff jar with two striated handles and 'frilled' projections on the rim. These 'frills' are characteristic of the highest strata, but no satisfactory analogy to them has yet come to light. They are a feature which, when more is known about them, should be useful chronologically.
327. Ch. I, layer 6. Buff jar with friezes of stamped notches and rosettes.
328. Ch. I, layer 6. Small bowl of reddish buff ware decorated internally in white paint.
329. Ch. I, layer 6, pit B. Buff rim with stamped parallel bars on the shoulder and the surface of the rim.
330. Ch. I, layer 6, pit B. Top of dark brown jar with horizontal linear and looped patterns in white paint. A considerable quantity of simple decoration in white was found in this layer.
331. Ch. I, layer 6, pit B. Massive cooking-tray of coarse red ware; a type not uncommon in the layers of the Islamic period.

Fig. 37

332. Ch. I, layer 6, pit B. Sharply grooved dish of buff ware.
333. Ch. I, layer 6. Small bowl of buff ware with central knob. See no. 302.
334. Ch. I, layer 4. Round-bottomed cooking-pot of reddish buff ware with traces of soot externally. The roughly striated lugs are characteristic of this phase.
335. Ch. I, layer 4. Large bowl of reddish buff ware.
336. Ch. I, layer 4. Dish of reddish buff ware with black linear and zigzag patterns on the interior.
337. Ch. I, layer 4. Bowl of reddish buff ware.
338. Ch. I, layer 4. Top of buff jar with line of crescentic notches round the neck.
339. Ch. I, layer 4. Top of reddish buff jar with internally flanged and grooved rim.
340. Ch. I, layer 4. Vessel of reddish buff ware with two or more roughly striated handles.
341. Ch. I, layer 4. Fragment of reddish buff bowl with friezes of stamped circles, rosettes, and lines, and with a ram's-head spout. The head may be intended to be that of an ox: cf. ox-head spouts approximately of the eighth century A.D. from sites in and near Russian Tadzhikistan, 300-400 miles north of Chārsada. See *Materialy i Issledovaniya po Arkheologii SSSR* (Moscow and Leningrad), xv (1946-7), pl. 43, 1, and p. 85; xxxvii (1948-50), p. 142, fig. 13; lxvi (1951-3), p. 129, fig. 23.
342. Ch. I, layer 3. Top of red jar with circular notches round the neck.
343. Ch. I, layer 3. Top of red jar with lines of slashed crescents round the neck.

Fig. 38

344. Ch. I, layer 3. Bowl of buff ware with angular rim.
345. Ch. I, layer 3. Rim of large jar of red ware with incurved rim. This is comparable with figs. 31, 278, and 32, 279-80, and previous examples, and may therefore be out of context in layer 3.

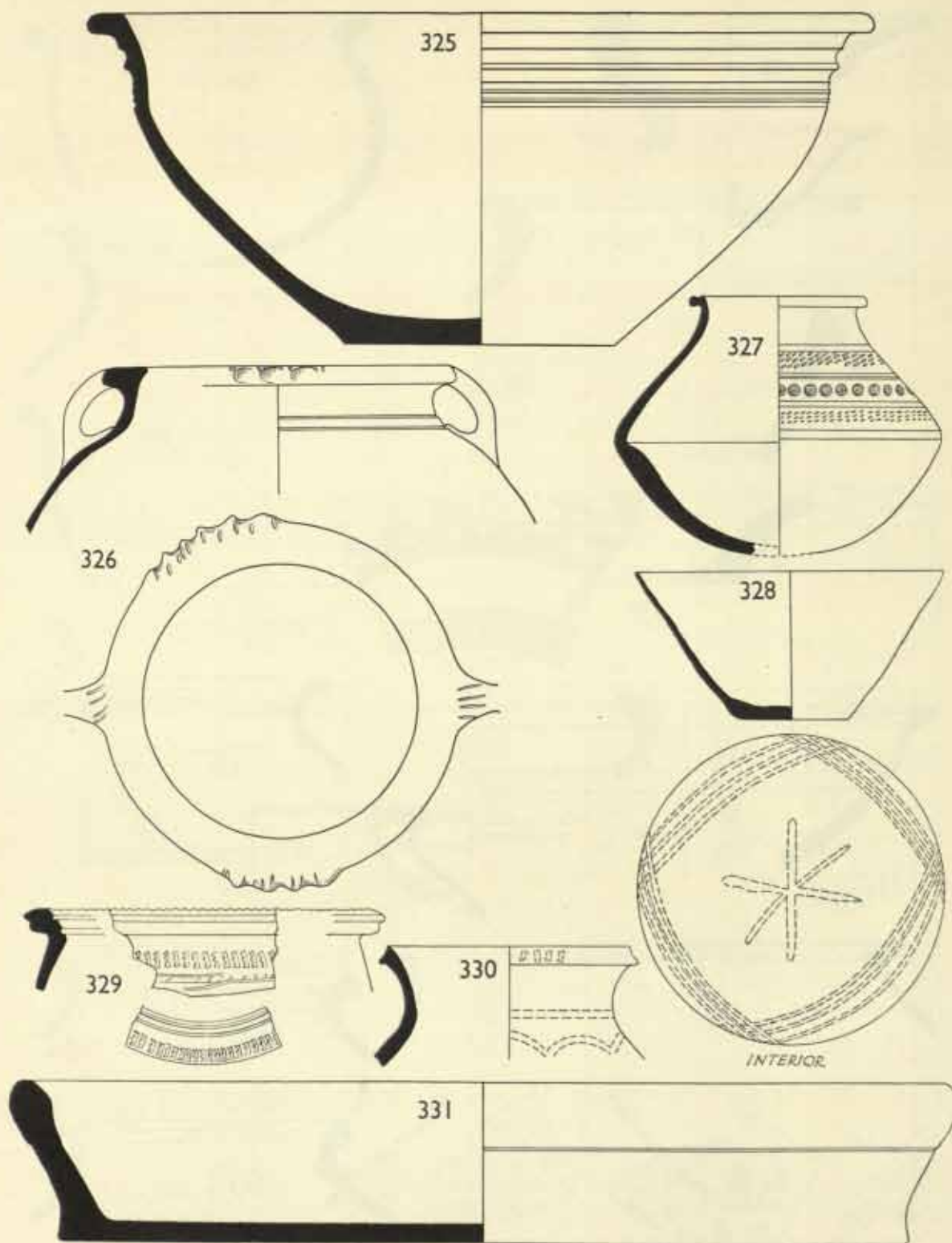


FIG. 36. Pottery from Ch. I: 325 from layer 7; 326-31 from layer 6. $\frac{1}{2}$.

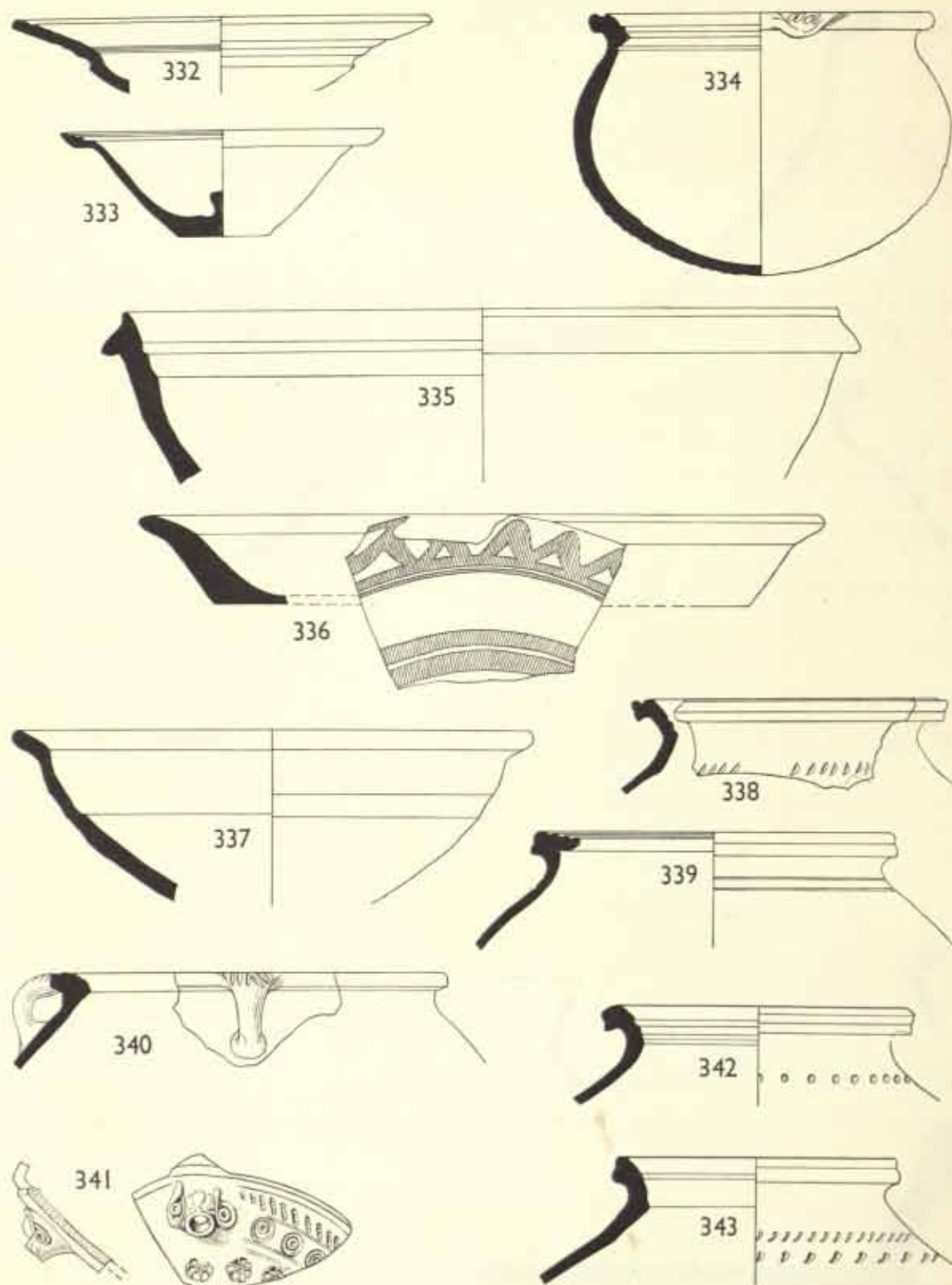


FIG. 37. Pottery from Ch. I: 332-3 from layer 6; 334-41 from layer 4; 342-3 from layer 3. $\frac{1}{4}$.

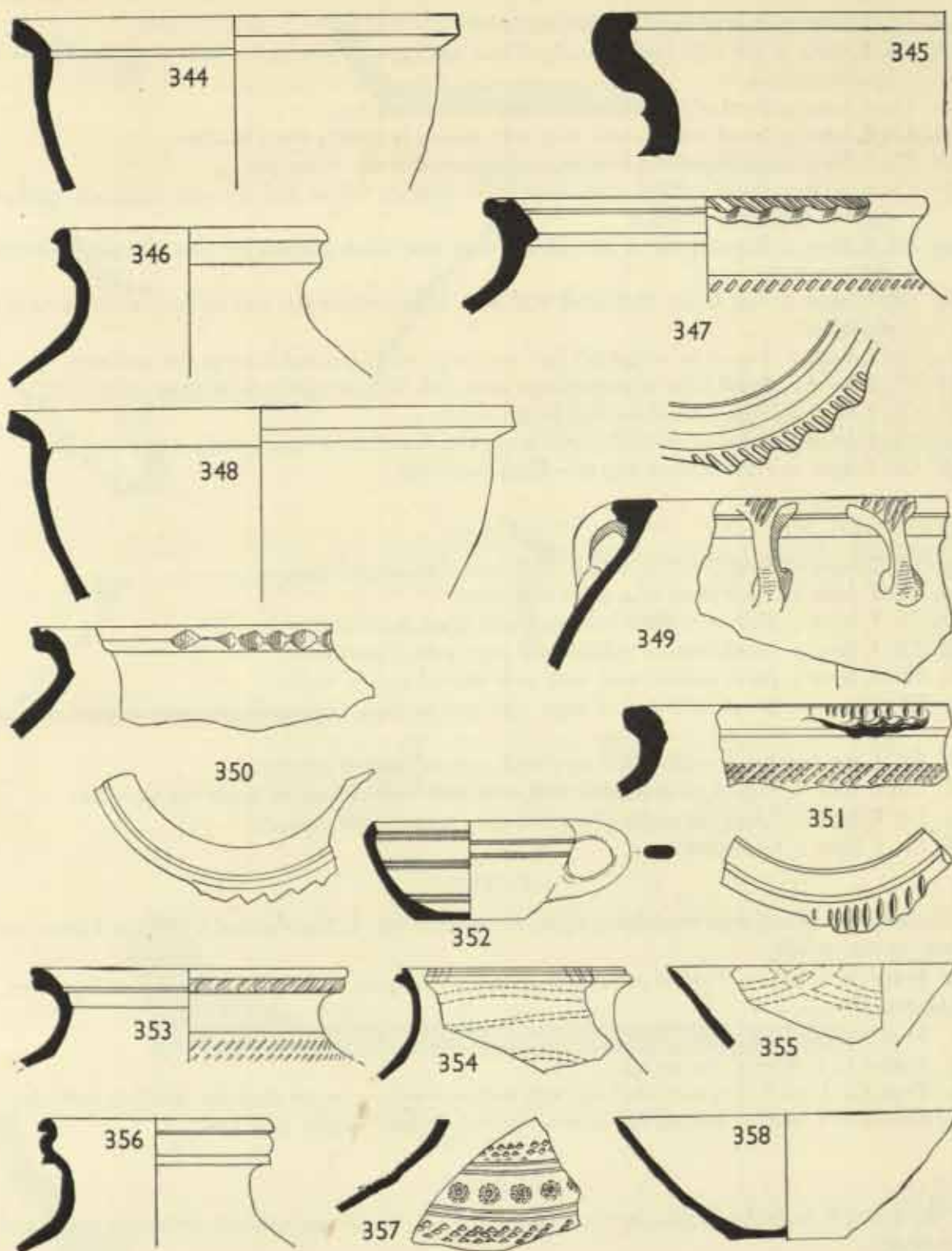


FIG. 38. Pottery from Ch. I: 344-7 from layer 3; 348-58 from layer 2. $\frac{1}{4}$.

- 346. Ch. I, layer 3. Top of jar of reddish buff ware.
- 347. Ch. I, layer 3. Jar with intermittently frilled and grooved rim and a band of oblique grooves round the neck.
- 348. Ch. I, layer 2. Bowl of reddish buff ware, similar to no. 344.
- 349. Ch. I, layer 2. Jar of reddish buff ware with several (probably four) handles.
- 350. Ch. I, layer 2. Jar of reddish buff ware with intermittently frilled rim.
- 351. Ch. I, layer 2. Jar of reddish ware with intermittently frilled and grooved rim, and oblique notches round the shoulder.
- 352. Ch. I, layer 2. Handled cup of smooth red ware with black-painted horizontal bands internally and externally.
- 353. Ch. I, layer 2. Top of jar of reddish buff ware with notched rim and oblique incisions on the shoulder.
- 354. Ch. I, layer 2. Top of jar of reddish buff ware with white-painted lines on rim and neck.
- 355. Ch. I, layer 2. Small bowl of grey-brown ware with intersecting loops of white paint.
- 356. Ch. I, layer 2. Top of jar of reddish brown ware.
- 357. Ch. I, layer 2. Sherd of reddish brown ware with stamped rosettes, lozenges, and triangles.
- 358. Ch. I, layer 2. Plain bowl or cup of reddish buff ware.

Fig. 39

- 359. Ch. I, layer 2. Small bowl of reddish buff ware with central knob.
- 360. Ch. I, layer 2. Small bowl of reddish buff ware.
- 361. Ch. I, layer 2. Dish of reddish buff ware with black horizontal lines.
- 362. Ch. I, layer 1. Small bowl of reddish buff ware with central knob.
- 363. Ch. I, layer 1. Jar of reddish buff ware with slashed ears or 'frills'.
- 364. Ch. I, layer 1. Jar of reddish buff ware with two or more slashed handles and slashed ears or 'frills'.
- 365. Ch. I, layer 1. Jar of reddish buff ware with vertical slashed handles.
- 366. Ch. I, layer 1. Top of jar of reddish buff ware with oblique slashes round the shoulder.
- 367. Ch. I, layer 1. Large flat cooking-tray of coarse reddish buff ware.
- 368. Ch. I, layer 1. Comparable.

Pl. XVII

Characteristic sherds from the Islamic layers at the top of Ch. I. Their period within the Islamic era is not yet determined.

- 1. From Ch. I, layer 2. Typical example of stamped decoration in rosettes and broken oblique lines. Reddish buff ware.
- 2. From the same layer. See no. 349.
- 3. From Ch. I, layer 4. See no. 341.
- 4. From Ch. I, pit B. Typical frilled rim with rouletted pattern on the shoulder. Reddish buff ware.
- 5. From Ch. I, layer 6. Frilled rim with horizontal notched handle. Buff ware.

Pl. XVIII

Glazed sherds from the Islamic layers at the top of Ch. I. The patterns are uniformly rough and elementary.

- 1. From the mixed material, mostly Islamic, which had fallen from the top of the Bālā Hīṣār on to Ch. IIIA. White glaze with rough blue leaf-pattern.

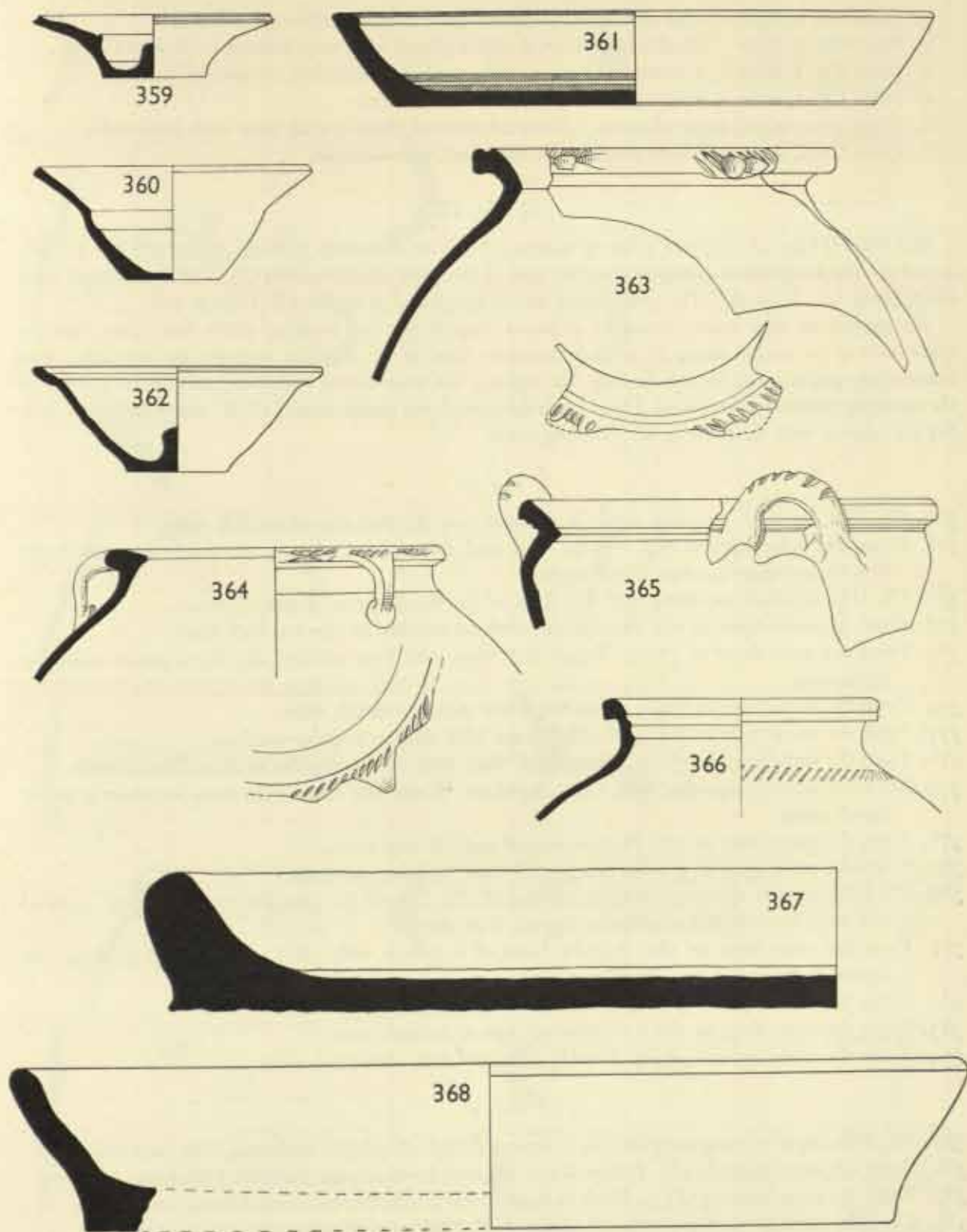


FIG. 39. Pottery from Ch. 1: 359-61 from layer 2; 362-8 from layer 1. $\frac{1}{4}$.

2. From Ch. I, layer 2. Rim of fine white-glazed ware with blue chevron-pattern.
3. From Ch. I, layer 5. Duck's-head boss of white-glazed ware with pattern in blue and green.
4. From Ch. I, layer 6. White-glazed ware with rough bird-and-tree pattern in blue.
5. From Ch. I, layer 2. White-glazed ware with blue pattern.
6. From same mixed material as no. 1. Internal base of white-glazed ware with blue radii.
7. From Ch. I, layer 4. White-glazed ware with dark blue scribble.

(b) Ch. III

Site Ch. III (figs. 40-42) was a line of squares (A-K) cut eastwards from the foot of site Ch. I in the search for the fortification anticipated on this side of the Bālā Hīṣār between Ch. I and the buried river identified in Ch. II (p. 23). The fortification was in fact found in square III J-K (p. 25).

The overlay in these squares consisted of mixed, largely Muslim, material which had fallen from the upper part of the mound during its gradual recession. Most of the stratified material had previously been removed by agriculturists for top-dressing, but a few of the lower strata remained intact in the vicinity of the surviving portion of the mound. These strata were numbered independently of the stratification of Ch. I, but are equated with the latter in the following notes.

Fig. 40

369. Ch. IIIA, layer 11, equating with Ch. I, layer 51a. Rippled rim of reddish ware.
370. From the same layer as 369. Similar ware and rim without notches or ripples but with triple groove and wavy cordon. Hand-made.
371. Ch. IIIA, layer 10, equating with Ch. I, layer 51. Rippled rim of reddish ware.
372. From the same layer as 371. Similar rim without notches or ripples. Buff ware.
373. From the same layer as 371-2. 'Soapy red' ware with four cordons and three studs; imitating metalwork.
374. From the same layer as 371-3. Wide carinated dish of reddish ware.
375. From the same layer as 371-4. Reddish ware with shallow angular cordons.
376. From the same layer as 371-5. 'Soapy red' ware with three irregular grooves. Hand-made.
377. Ch. IIIA, layer 9, equating with Ch. I, layer 50. 'Soapy red' ware with three irregular grooves. Hand-made.
378. From the same layer as 377. Rippled rim of reddish buff ware.
379. From the same layer as 377-8. 'Soapy red' ware with four cordons.
380. Ch. IIIA, layer 8, equating with the surface of Ch. I, layer 50. Straight everted rim of 'rippled rim' type but without notches or ripples. Buff ware.
381. From the same layer as 380. Angular bowl of red ware with plain and notched cordons and incised wave round rim. Reddish ware.
382. From the same layer as 380-1. Cordoned vessel of 'soapy red' ware.
383. From the same layer as 380-2. Carinated dish of reddish ware.
384. From the same layer as 380-3. Bluntly carinated dish of reddish ware.

Fig. 41

385. Ch. IIIA, layer 7, equating with Ch. I, layer 49. Dish of reddish buff ware with inturned sides.
386. From the same layer as 385. Pedestal-foot of small bowl or cup. Reddish buff ware.
387. From the same layer as 385-6. Neck of reddish ware with two horizontal black lines.
388. Ch. IIIA, layer 6, equating with Ch. I, layer 48. Dish of buff ware with inturned sides.
389. From the same layer as 388. Rippled rim of buff ware.

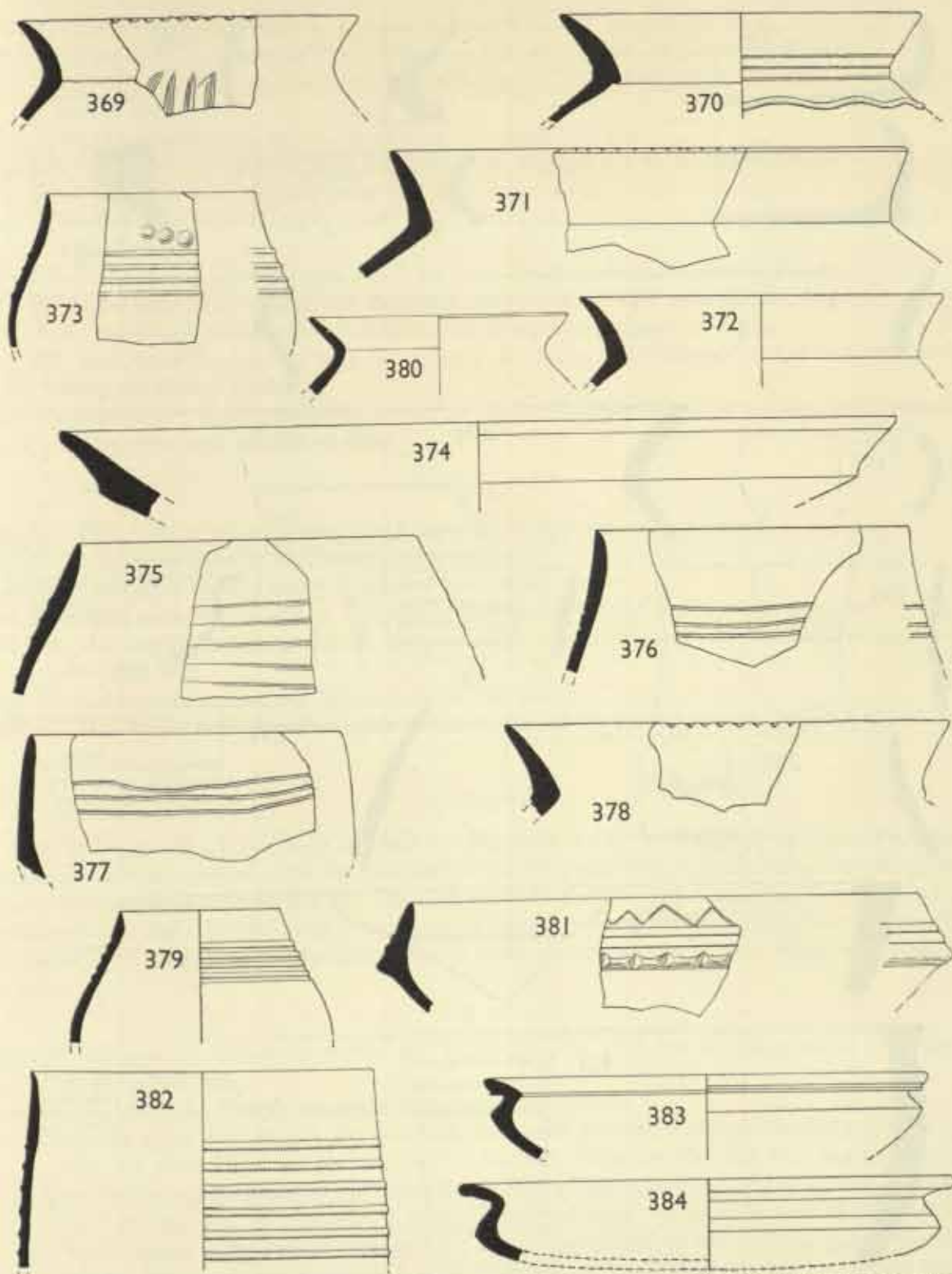


FIG. 40. Pottery from Ch. IIIA: 369-70 from layer 11; 371-6 from layer 10; 377-9 from layer 9; 380-4 from layer 8. $\frac{1}{4}$.

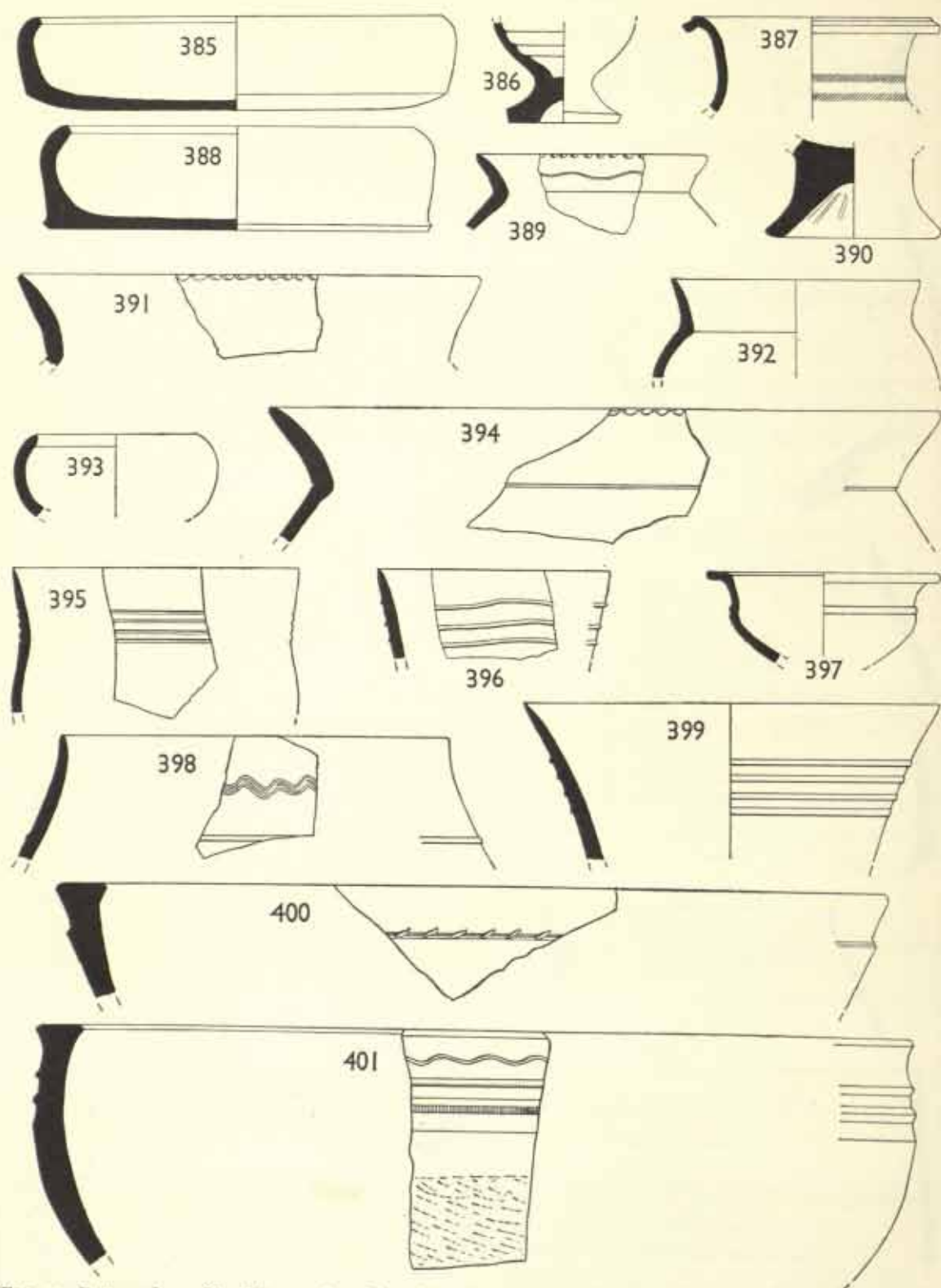


FIG. 41. Pottery from Ch. IIIA-B: 385-7 from layer A 7; 388-90 from layer A 6; 391-3 from layer B 12; 394-6 from layer B 11; 397-9 from layer B 9; 400 from layer B 8; 401 from layer B 7. $\frac{1}{4}$.

390. From the same layer as 388-9. Pedestal of smooth (almost 'soapy') red ware.
 391. Ch. IIIB, layer 12, equating with Ch. I, layer 51a. Rippled rim of reddish buff ware.
 392. From the same layer as 391. Straight everted rim of 'rippled rim' type but without notches or ripples. Buff ware.
 393. From the same layer as 391-2. Small bowl of reddish buff ware.
 394. Ch. IIIB, layer 11, equating with Ch. I, layer 51. Rippled rim of reddish buff ware.
 395. From the same layer as 394. 'Soapy red' ware with four horizontal grooves.
 396. From the same layer as 394-5. 'Soapy red' ware with irregular cordons. Made by hand or on a *tournette*.
 397. Ch. IIIB, layer 9, equating with Ch. I, layer 49. Small cordoned bowl of buff ware.
 398. From the same layer as 397. Red ware with cordon and combed wave-pattern.
 399. From the same layer as 397-8. Funnel-mouth of cordoned 'soapy red' ware.
 400. Ch. IIIB, layer 8, equating with Ch. I, layer 48. Large club-rimmed bowl of red ware with obliquely slashed cordon.
 401. Ch. IIIB, layer 7, equating with Ch. I, layer 47. Large club-rimmed bowl of red ware with cordons, wavy groove, and roughened sides.

Fig. 42

402. Ch. IIIB, layer 6, equating with Ch. I, layer 46. 'Soapy red' ware cordoned.
 403. From the same layer as 402. Pedestal of red ware.
 404. From the same layer as 402-3. Cordoned bowl of red ware.
 405. From the same layer as 402-4. Large club-rimmed bowl of red ware with rope-cordon.
 406. Ch. IIIC, layer 8, equating with Ch. I, layer 50. Funnel-rim of 'soapy red' ware with cordons and elongated boss.
 407. From the same layer as 406. Rippled rim of buff ware.
 408. Ch. IIJ, on the natural surface below the inner edge of the defensive ditch. Rippled rim of red ware.

(c) Ch. II

Site Ch. II (figs. 43-45) was cut in the shallow valley to the east of the Bālā Hīṣār to ascertain whether the mound had ever extended across the depression. As stated elsewhere (p. 23), the cutting showed that at no time had the mound extended thus far. The filling consisted of wind-blown or man-laid deposits stratified by water-action, and at a depth of 15 ft. water was in fact reached under a thick layer of pure alluvium in November 1958. There were no structures, and most of the pottery consisted of small sherds much abraded by water.

Fig. 43

409. Ch. II, layer 15. Straightly everted rim of 'rippled rim' type but without notches or ripples. Reddish buff ware.
 410. Ch. II, layer 14a. Sharply recurved rim of reddish buff ware.
 411. From the same layer as 410. Reddish buff sherd with stamped palmette. Stamped patterns of this and allied kinds are characteristic of the early centuries A.D., but they are found also appreciably earlier, and the present example, if in place, is very unlikely to be later than the third century B.C. At Hastināpura stamped patterns occur 'in an early level of Period IV', which begins in the second century B.C. (*Ancient India*, nos. 10 and 11 (1954-5), pp. 70-71); but the history of this widespread mode of decoration in the subcontinent has not yet been worked out.

412. From the same layer as 410-11. Dish of reddish buff ware with incurved sides.
 413. From the same layer as 410-12. Bowl of reddish buff ware with horizontal grooves.
 414. From the same layer as 410-13. Small bowl of red ware with horizontal grooves.

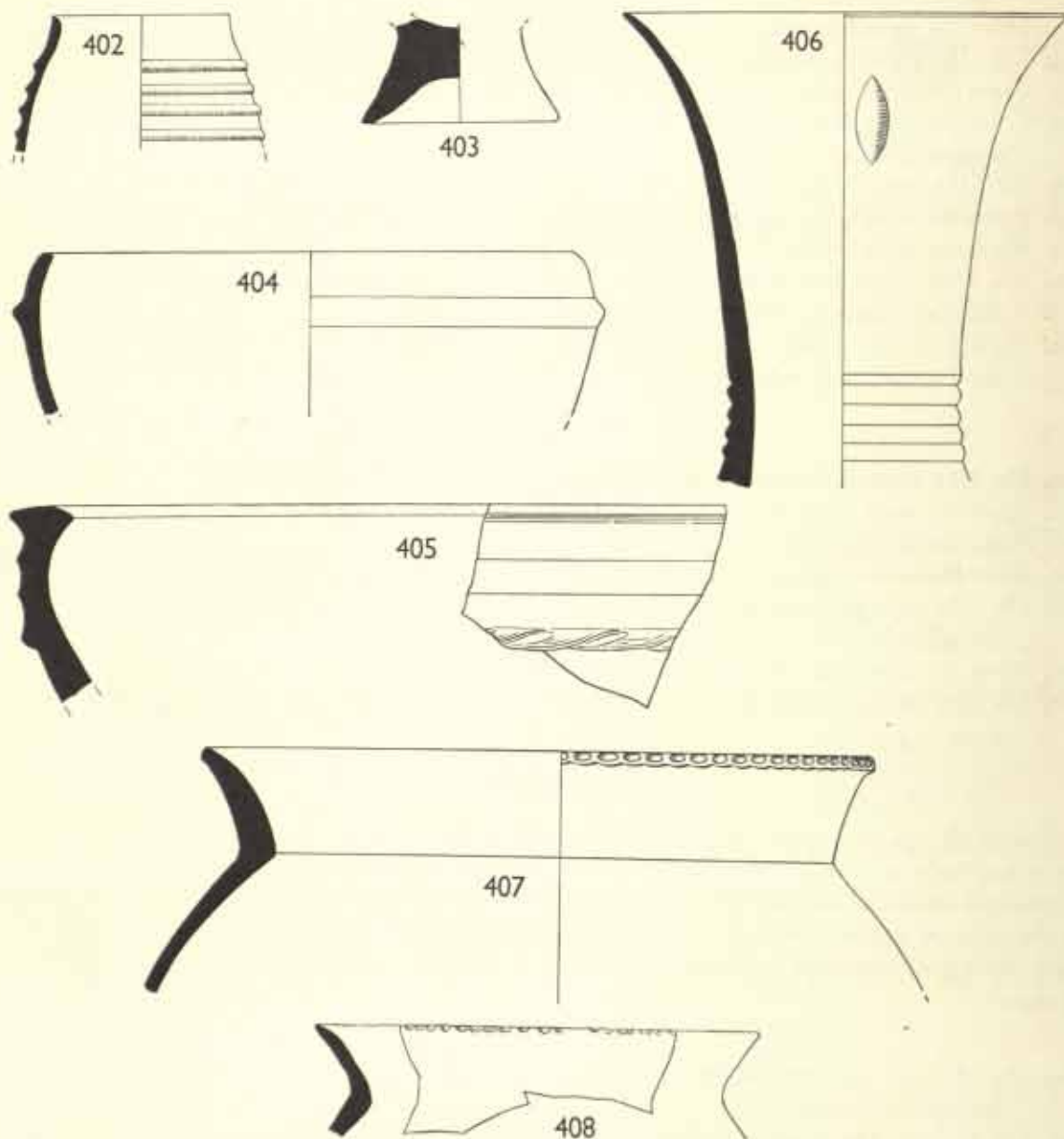


FIG. 42. Pottery from Ch. IIIb, c and j: 402-5 from layer B 6; 406-7 from layer c 8; 408 from the natural surface in III j, below the lip of the defensive ditch. $\frac{1}{4}$.

415. From the same layer as 410-14. Club-rimmed and grooved bowl of red ware.
 416. From the same layer as 410-15. Bowl with obliquely thickened rim. Reddish buff ware.
 417. From the same layer as 410-16. Heavy bowl of reddish buff ware with indented cordon.
 418. From the same layer as 410-17. Pedestal of smooth red ware.
 419. Ch. II, layer 14. Pedestal of smooth red ware.

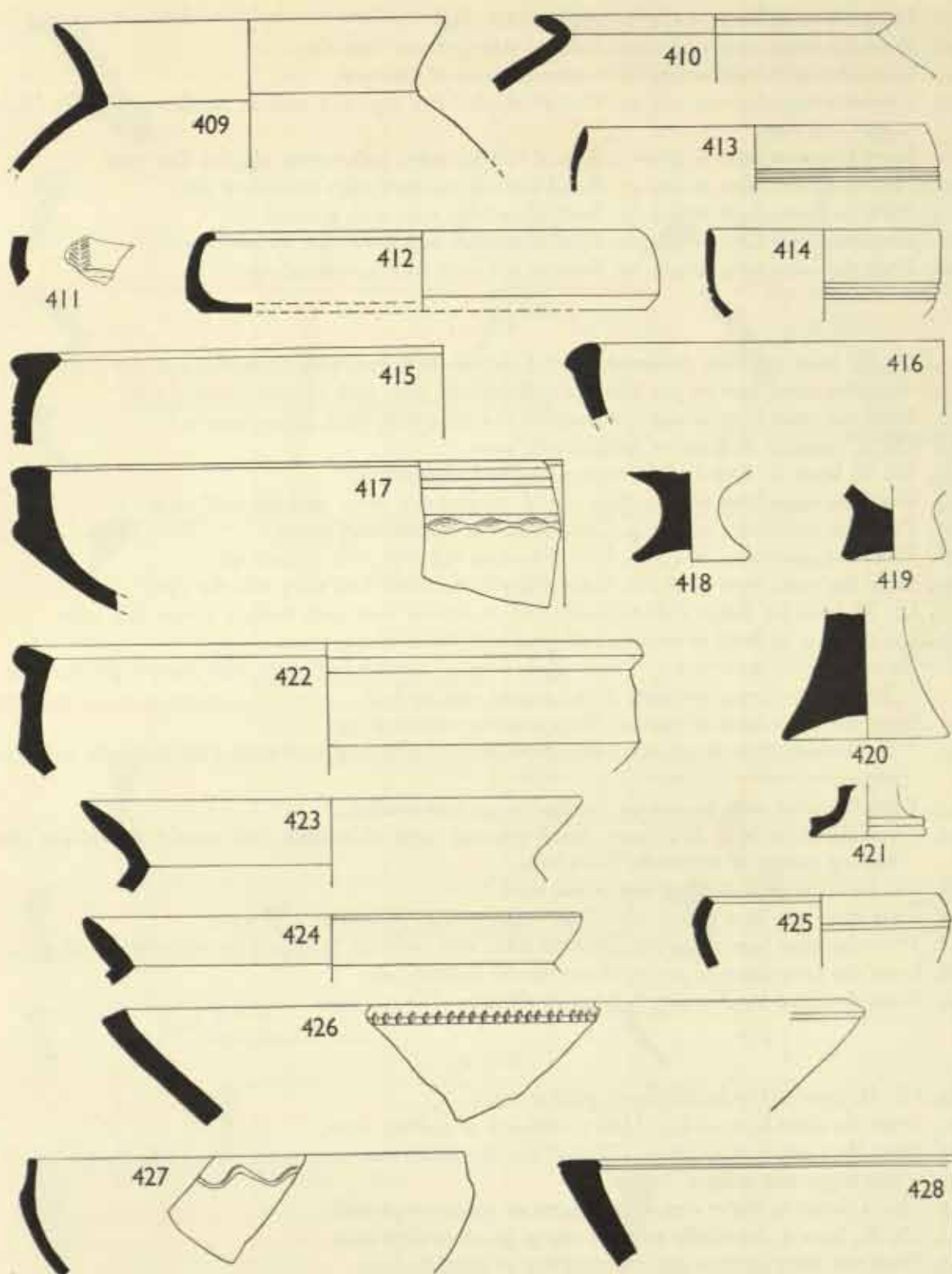


FIG. 43. Pottery from Ch. II: 409 from layer 15; 410-18 from layer 14a; 419-28 from layer 14. $\frac{1}{2}$.

- 420. From the same layer as 419. Pedestal of buff ware.
- 421. From the same layer as 419-20. Pedestal with grooved foot-ring.
- 422. From the same layer as 419-21. Carinated bowl of red ware.
- 423. From the same layer as 419-22. Rim of 'rippled rim' type but without notches or ripples. Reddish buff ware.
- 424. From the same layer as 419-23. Rim of reddish ware, akin to the 'rippled rim' type.
- 425. From the same layer as 419-24. Small bowl of red ware with chamfered rim.
- 426. From the same layer as 419-25. Bowl of reddish ware with notched rim.
- 427. From the same layer as 419-26. Bowl of reddish buff ware with incised wave.
- 428. From the same layer as 419-27. Bowl of red ware with horizontal rim.

Fig. 44

- 429. Ch. II, layer 13. Wide carinated bowl of reddish buff ware with horizontal rim and cordons.
- 430. From the same layer as 429. Bowl of reddish buff ware with bluntly rounded rim.
- 431. From the same layer as 429-30. Sherd of red ware with black linear pattern.
- 432. Ch. II, layer 12. Pedestal of reddish buff ware.
- 433. Ch. II, layer 11. Sherd of red ware with black leaf-pattern.
- 434. From the same layer as 433. Plain rim of 'rippled rim' type. Reddish buff ware.
- 435. From the same layer as 433-4. Grooved rim of reddish buff ware.
- 436. From the same layer as 433-5. Rim of smooth red ware with incised wave.
- 437. From the same layer as 433-6. Shallow bowl of reddish buff ware with flat rim.
- 438. Ch. II, layer 10. Large club-rimmed bowl of reddish ware with shallow groove and wave.
- 439. Ch. II, layer 9. Bowl of reddish buff ware with horizontal grooves.
- 440. From the same layer as 439. Finely made bowl of reddish buff ware with sharply grooved rim; 'Lotus Bowl' type, probably of the second century B.C.
- 441. From the same layer as 439-40. More massive version of 440.
- 442. From the same layer as 439-41. Large grooved bowl of reddish buff ware with obliquely rounded rim.
- 443. From the same layer as 439-42. Similar to 442 but smaller.
- 444. From the same layer as 439-43. Small grooved bowl of reddish buff ware with oblique rim bearing groups of transverse black lines.
- 445. Ch. II, layer 8a. Cordoned rim of red ware.
- 446. From the same layer as 445. Rounded T-shaped rim of reddish buff ware.
- 447. From the same layer as 445-6. Grooved bowl with rounded T-shaped rim of reddish buff ware.
- 448. From the same layer as 445-7. Heavy rim of reddish ware.
- 449. From the same layer as 445-8. Club-rimmed bowl of red ware.

Fig. 45

- 450. Ch. II, layer 8. Cordoned rim of reddish ware.
- 451. From the same layer as 450. Heavy bead-rim of reddish ware.
- 452. From the same layer as 450-1. Grooved rim of reddish ware akin to the rims of the 'Lotus Bowls' but larger and coarser.
- 453. Ch. II, layer 6. Heavy rim of large bowl of reddish buff ware.
- 454. Ch. II, layer 5. Internally grooved rim of jar of reddish ware.
- 455. From the same layer as 454. Flanged rim of reddish ware.
- 456. From the same layer as 454-5. Clubbed, flat-topped rim of large bowl of reddish ware.

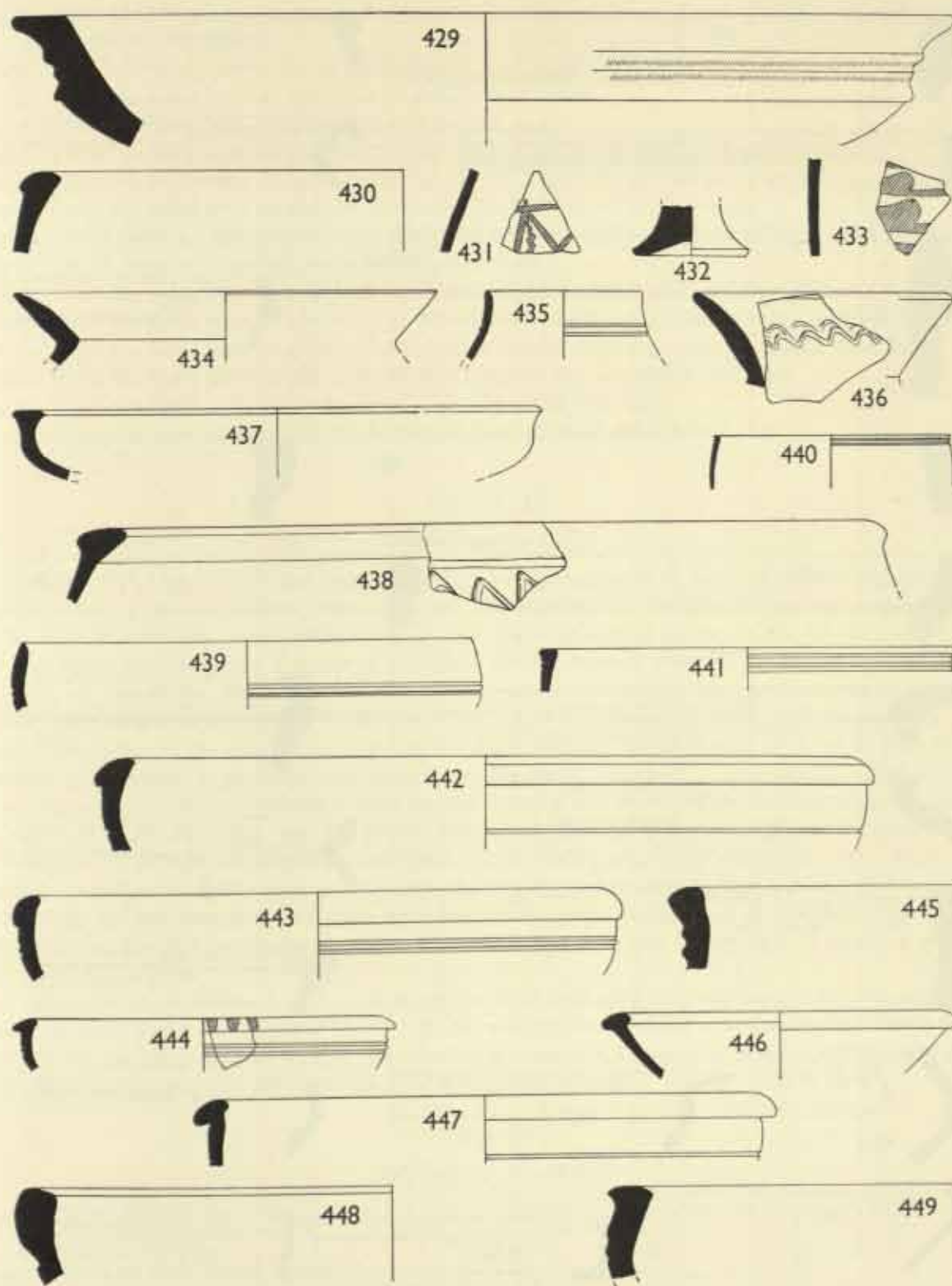


FIG. 44. Pottery from Ch. II: 429-31 from layer 13; 432 from layer 12; 433-7 from layer 11; 438 from layer 10; 439-44 from layer 9; 445-9 from layer 8a. $\frac{1}{4}$.

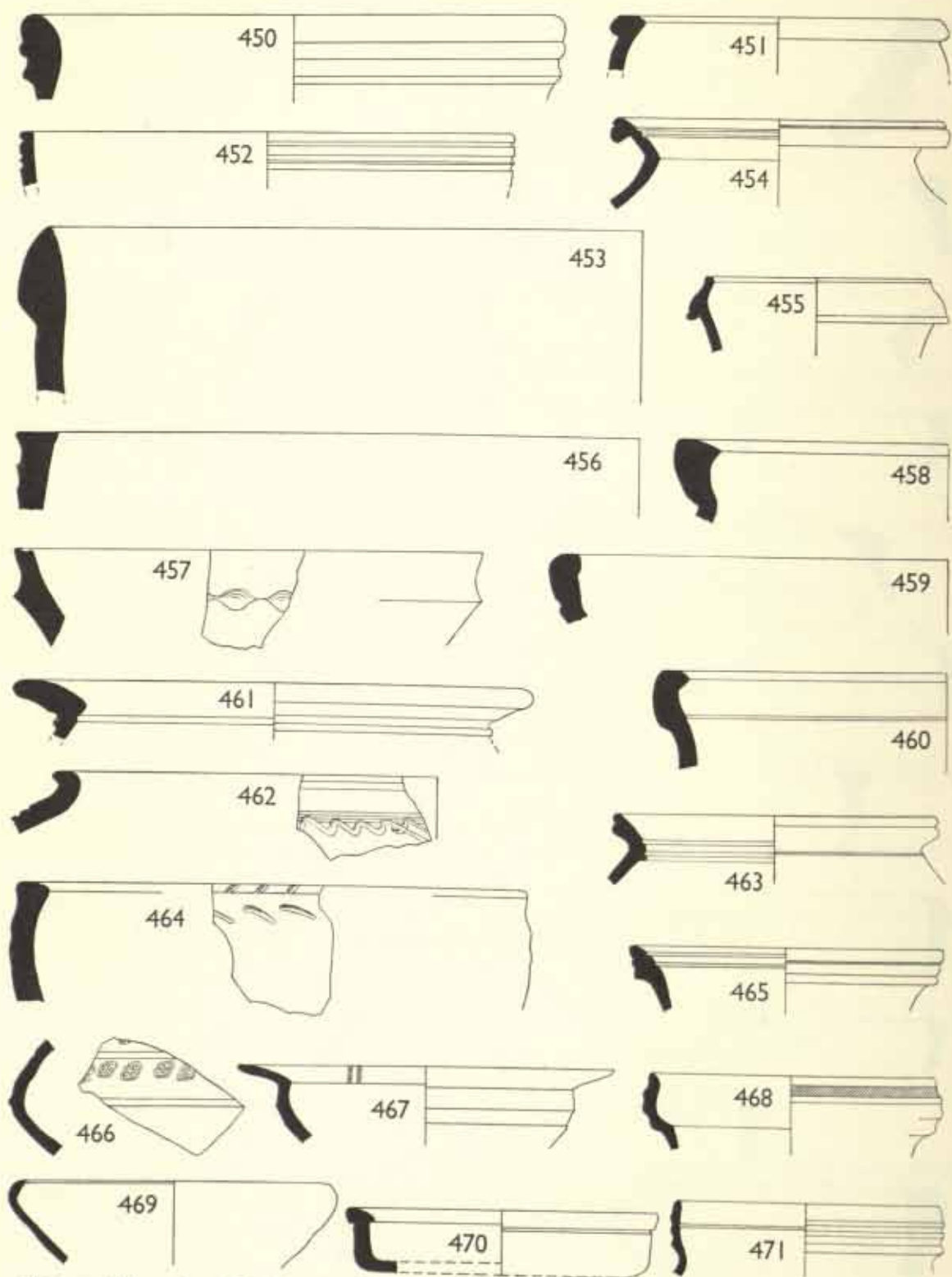


FIG. 45. Pottery from Ch. II: 450-2 from layer 8; 453 from layer 6; 454-7 from layer 5; 458-63 from layer 4; 464 from layer 3; 465-71 from layer 2. $\frac{1}{4}$.

- 457. From the same layer as 454-6. Bowl of reddish ware with rim grooved on the top surface and indented carination.
- 458. Ch. II, layer 4. Heavy rim of reddish ware, comparable with 448.
- 459. From the same layer as 458. Rim of reddish buff ware.
- 460. From the same layer as 458-9. Rim of reddish ware.
- 461. From the same layer as 458-60. Sharply everted and cordoned rim of reddish ware.
- 462. From the same layer as 458-61. Rim of reddish ware with grooves and bluntly incised wave.
- 463. From the same layer as 458-62. Internally grooved rim of reddish ware.
- 464. Ch. II, layer 3. Club-rimmed bowl of reddish buff ware with oblique slashes on rim and shoulder
- 465. Ch. II, layer 2. Grooved rim of reddish buff ware.
- 466. From the same layer as 465. Red sherd with stamped rosette and cruciform pattern.
- 467. From the same layer as 465-6. Bowl with sharply everted rim bearing transverse black lines.
- 468. From the same layer as 465-7. Head of jar of reddish buff ware with horizontal black band.
- 469. From the same layer as 465-8. Bowl with inturned rim of reddish buff ware.
- 470. From the same layer as 465-9. Small dish of reddish buff ware.
- 471. From the same layer as 465-70. Cordoned head of jar of reddish buff ware.

(d) Ch. IV

(second century B.C.)

Site Ch. IV (figs. 46-48) had been largely disturbed by cultivators in search of top-dressing, and most of its pottery is therefore omitted from this Report. There is indeed no hint that the site was occupied before the third or after the second century B.C., so that the complications present on site Ch. III, where the upper layers were largely a mélange of derivative Muslim material from the top of the adjacent Bālā Hīṣār, are here absent. But though, relative to our ignorance, a bracket of two centuries is not an insuperable objection to a more extensive publication of Ch. IV, I have thought it better, with few exceptions, to limit illustration to the compact mass of material which occupied the uppermost 18 ft. of its Well E, in which, at a depth of 10 ft. 10 in., was found a tetradrachm of Menander, c. 155-130 B.C. This coin, in so far as a single well-preserved coin is valid, suggests a central date in the third or last quarter of the second century B.C. for the filling; and the pottery types throughout this filling are sufficiently consistent and distinctive to indicate no very wide time-span. In particular, the highly distinctive 'Lotus Bowl', of which several examples occurred actually with the coin, ranged abundantly from depths of 6 to 12 ft. in the filling and was associated with other types present throughout the whole 18 ft. The bulk of the filling of Well E is therefore ascribed to the middle or second half of the second century B.C. A historical context is postulated on p. 28.

In clearing the well down to 18 ft.—the maximum depth attainable with reasonable safety—it was noted that, with the doubtful exception of the top 2 ft., the material was devoid of stratification, and there is little doubt that the filling had been a single operation. As a precaution, however, the filling was removed in 3-ft. blocks, and these artificial depths are recorded in the following notes.

Fig. 46

All from Ch. IV, Well E

- 472. Depth of 18 ft. Small bowl of reddish ware, with rounded T-shaped rim. Similar to 202 (Ch. I), 446 (Ch. II).
- 473. Depth of 18 ft. Small carinated bowl of red ware.
- 474. Depth of 12 ft. Small bowl of reddish buff ware.

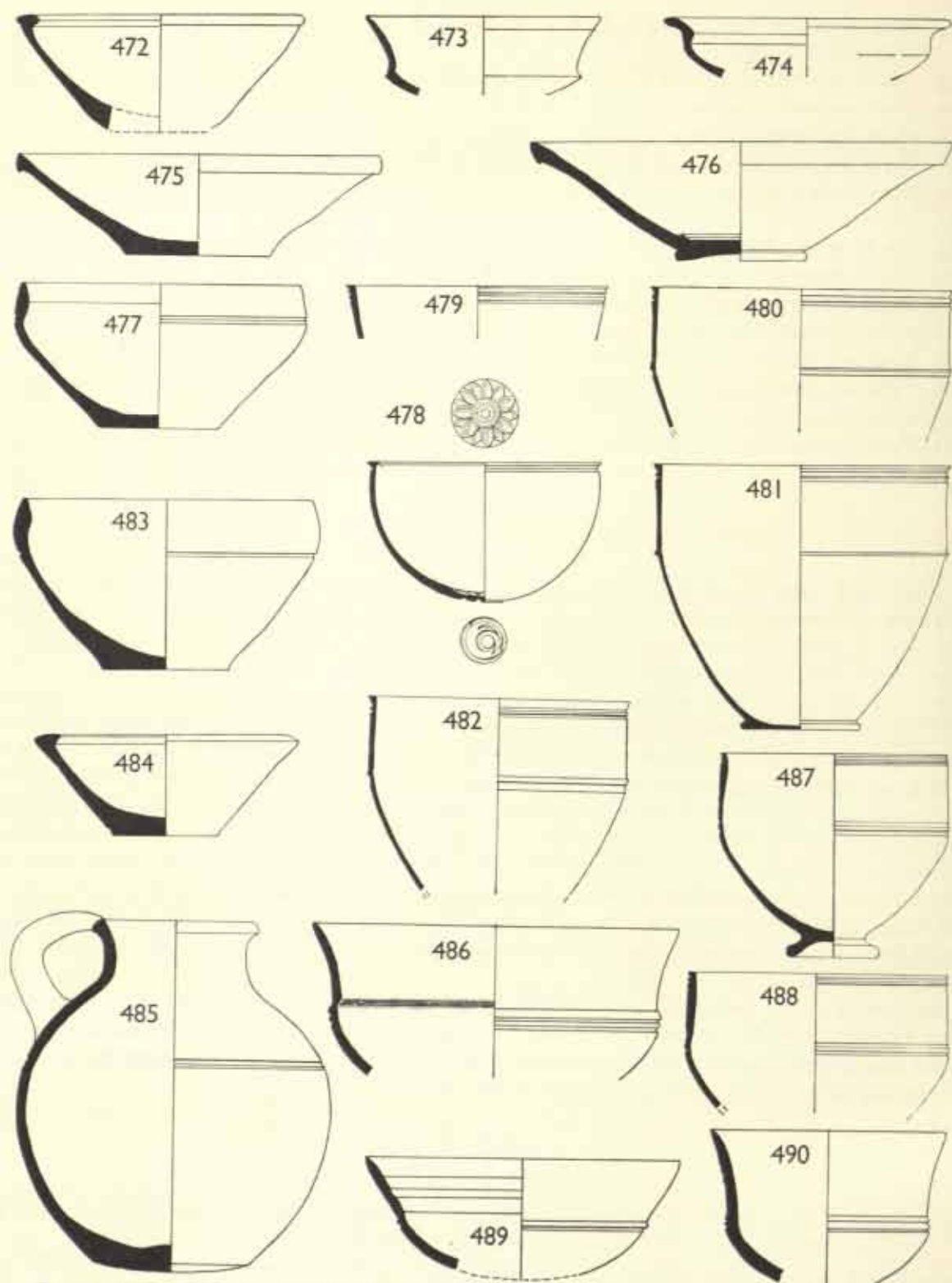


FIG. 46. Pottery from Ch. IV, Well E: 472-3 from a depth of 18 ft.; 474-9 from a depth of 12 ft.; 480-5 from a depth of 9 ft.; 486-90 from a depth of 4-6 ft. $\frac{1}{2}$.

- 475. Depth of 12 ft. Small bowl of reddish ware with vertical flanged rim.
- 476. Depth of 12 ft. Small bowl of reddish buff ware, similar to 475.
- 477. Depth of 12 ft. Grooved bowl of reddish buff ware.
- 478. Depth of 12 ft. 'Lotus Bowl' of fine reddish ware with internal stamped lotus and external grooved circles on the rounded base. For the type, see p. 40.
- 479. Depth of 12 ft. Rim of reddish 'Lotus Bowl'.
- 480. Depth of 9 ft. Tall angular bowl of reddish buff ware with rim similar to that of the 'Lotus Bowl'.
- 481. Depth of 9 ft. Complete example of 480.
- 482. Depth of 9 ft. Part of similar bowl.
- 483. Depth of 9 ft. Grooved bowl of reddish ware, similar to 477.
- 484. Depth of 9 ft. Small bowl of reddish ware akin to 472.
- 485. Depth of 9 ft. Jug of reddish ware.
- 486. Depth of 4-6 ft. Cordoned bowl of reddish buff ware akin to the 'Tulip Bowl'.
- 487. Depth of 4-6 ft. Bowl of reddish buff ware, similar to 480-2.
- 488. Depth of 4-6 ft. Similar bowl.
- 489. Depth of 4-6 ft. Cordoned 'Tulip Bowl' of reddish buff ware.
- 490. Depth of 4-6 ft. Cordoned bowl of reddish buff ware, akin to 'Tulip Bowl'.

Fig. 47

Nos. 491-4 are interpolated from an undisturbed patch beside the lip of Well E.

- 491. Ch. IV, layer 3. Dish of reddish buff ware with incurved sides.
- 492. From the same layer as 491. Carinated bowl of reddish buff ware.
- 493. From the same layer as 491-2. Small bowl of reddish ware with oblique black strokes on the rim.
- 494. From the same layer as 491-3. Bluntly carinated bowl of reddish buff ware.

From no. 495 the material from the filling of Well E is resumed.

- 495. Ch. IV, Well E, depth of 4-6 ft. Small grooved bowl of reddish ware.
- 496. Depth of 2-4 ft. Polished black amphora imitating metalwork; note the imitation rivet-studs at the handle.
- 497. Depth of 2-4 ft. Grooved bowl of reddish buff ware.
- 498. Depth of 2-4 ft. Flanged bowl of red ware with hatched black triangles and other linear patterns on the flange, and an angular trefoil on the inside of the base.
- 499. Depth of 2-4 ft. Bowl of black ware with incurved rim.
- 500. Depth of 2-4 ft. Bowl of reddish ware with vertical flange-rim.
- 501. Depth of 2-4 ft. 'Bottle' of reddish buff ware with sagger base.
- 502. Depth of 2-4 ft. Bowl of reddish buff ware with incurved rim.
- 503. Depth of 2-4 ft. Bowl of grey ware akin to 472, &c.
- 504. Depth of 2-4 ft. Top of 'bottle' of red ware.

Fig. 48

Pottery from the top 2 ft. of the filling of Ch. IV, Well E.

- 505. Cooking-pot of reddish ware, covered externally with soot below the cordons.
- 506. Cooking-pot of reddish buff ware.
- 507. Bowl of reddish buff ware with incurved rim.
- 508. Bowl of reddish ware with vertical flange, similar to 475-6, &c.

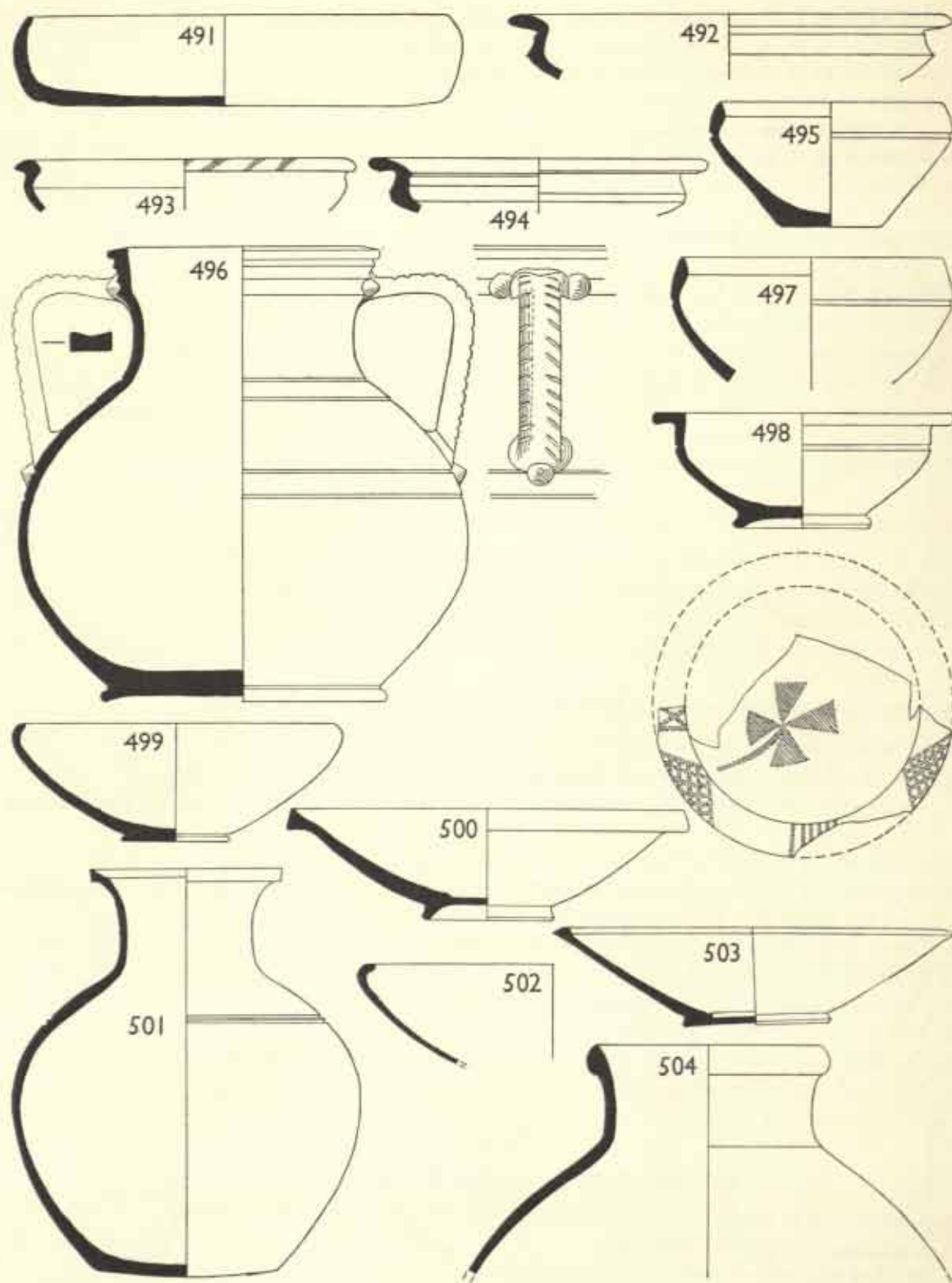


FIG. 47. Pottery from Ch. IV: 491-4 from layer 3; 495-504 from Well E at a depth of 2-4 ft. $\frac{1}{2}$.

509. Small bowl of reddish buff ware with oblique rim, similar to 484, &c.
 510. Plain bowl of reddish buff ware.
 511. Cordoned bowl of reddish buff ware.
 512. Small bowl of reddish ware.
 513. Plain bowl of fine red ware.
 514. Dish of reddish buff ware with incurved sides.

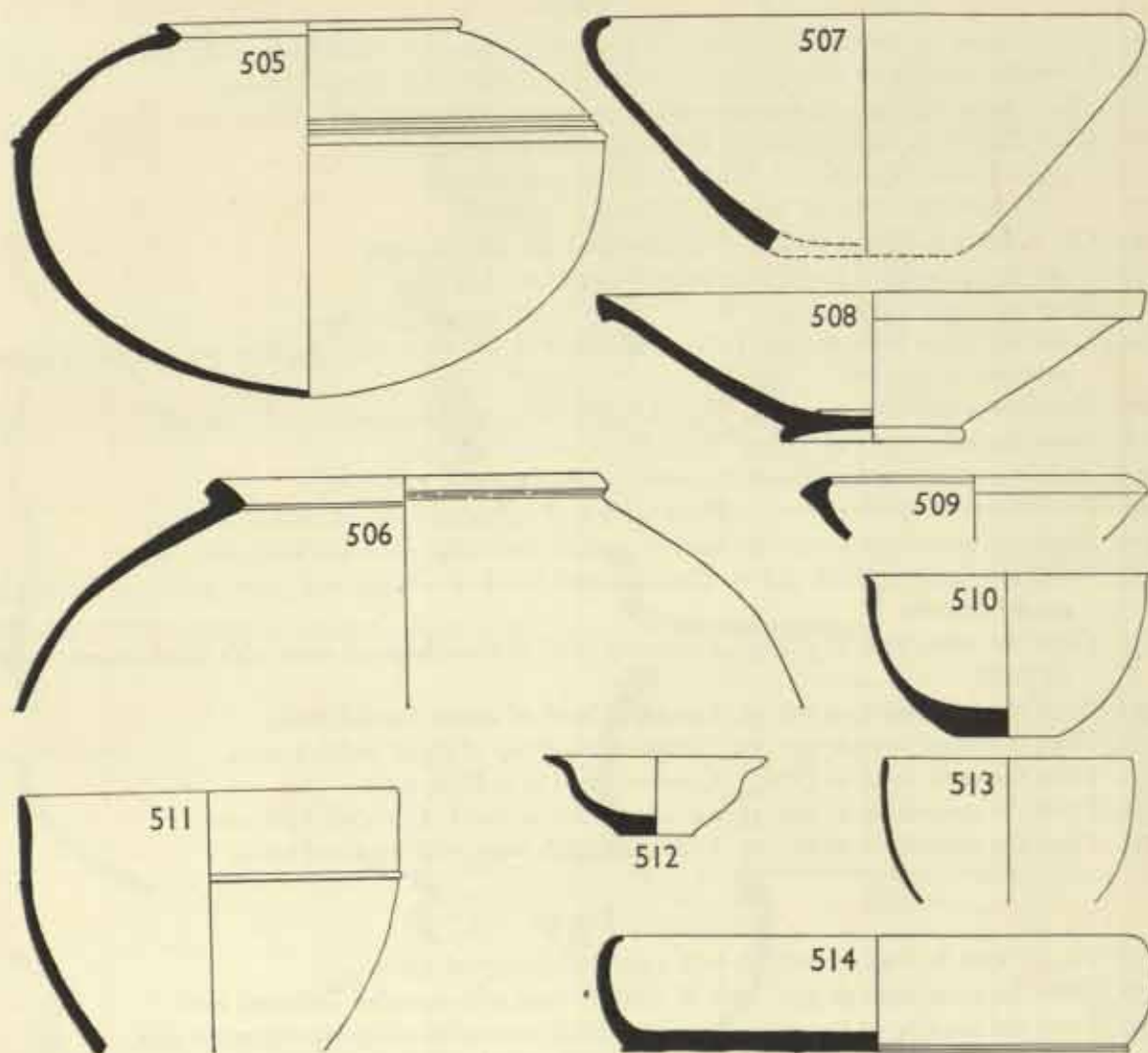


FIG. 48. Pottery from Ch. IV, Well E, from the top 2 ft. of the filling. $\frac{1}{2}$.

(e) Ch. V

Site Ch. V (figs. 49-50) is that of the mud-brick house adjoining Ch. IV (see pl. XIII). The building could not be explored adequately in the time available, but sondages distinguished five phases of construction and reconstruction (p. 30). The earliest was scarcely touched by the excavation, but layer 14—the lowest here represented—equated with the occupation of Phase I, and layer 13 contained the burnt debris of this phase. Layers 11 and 12 equate with Phase II; layers 9-10 are the make-up of the floor of Phase III, layer 8

is the floor itself, and layer 7 is the occupation-debris on it. Layers 5A and 6 are renewals of the floor, cut into for the rebuilding of Phase IV. Layers 4 and 5, with intervening clay floor, equate with Phase IV and its destruction; and layers 2-3 are contemporary with Phase V.

On our present classification, the whole of the pottery of Ch. V is bracketed by the beginning of the third century B.C. and the end of the second.

Fig. 49

- 515. Ch. V, layer 14. Bowl of red ware with groups of transverse black lines on the rim.
- 516. From the same layer as 515. Dish of reddish buff ware with incurved sides.
- 517. Ch. V, layer 12. Dish of smooth reddish ware with incurved sides.
- 518. Ch. V, layer 11. Dish of reddish buff ware with incurved sides.
- 519. From the same layer as 518. 'Tulip Bowl' of reddish ware.
- 520. Ch. V, layer 10. Grooved bowl of red ware.
- 521. Ch. V, layer 9. Coarse variety of 'Tulip Bowl' of reddish ware.
- 522. From the same layer as 521. Carinated bowl of reddish ware.
- 523. From the same layer as 521-2. Small 'Tulip Bowl' of reddish ware.
- 524. From the same layer as 521-3. Grooved bowl of red ware with crudely painted black linear patterns on exterior.
- 525. From the same layer as 521-4. Top of 'bottle' of grey ware.
- 526. From the same layer as 521-5. 'Tulip Bowl' of reddish ware.
- 527. From the same layer as 521-6. Grooved bowl of reddish buff ware.
- 528. From the same layer as 521-7. Blunt variant of carinated bowl of reddish ware.
- 529. From the same layer as 521-8. Bowl of reddish ware with rounded T-shaped rim.
- 530. From the same layer as 521-9. Club-rimmed bowl of smooth red ware with horizontal and waved grooves.
- 531. From the same layer as 521-30. Carinated bowl of smoothed red ware with black linear pattern on rim.
- 532. From the same layer as 521-31. Carinated bowl of coarse reddish ware.
- 533. From the same layer as 521-32. Flange-rimmed top of jar of reddish ware.
- 534. From the same layer as 521-33. Grooved bowl of reddish ware.
- 535. From the same layer as 521-34. Carinated dish or bowl of reddish buff ware.
- 536. From the same layer as 521-35. Dish of reddish ware with incurved sides.

Fig. 50

- 537. Ch. V, layer 8. Dish of reddish buff ware with incurved sides.
- 538. From the same layer as 537. Dish of reddish ware with rounded T-shaped rim.
- 539. From the same layer as 537-8. Bowl of reddish ware with obliquely expanded rim.
- 540. Ch. V, layer 7. Dish of reddish buff ware with rolled rim.
- 541. From the same layer as 540. Grooved bowl of red ware.
- 542. From the same layer as 540-1. Rim of fine red ware with black peacock.
- 543. From the same layer as 540-2. Bowl of reddish ware with obliquely expanded rim.
- 544. Ch. V, layer 6. 'Tulip Bowl' of reddish buff ware.
- 545. From the same layer as 544. Grooved bowl of reddish buff ware.
- 546. From the same layer as 544-5. Globular variant of 'Tulip Bowl' of red ware.
- 547. From the same layer as 544-6. Pedestal of smooth (almost 'soapy') red ware.
- 548. Ch. V, layer 5. Pedestal of ware similar to 547.

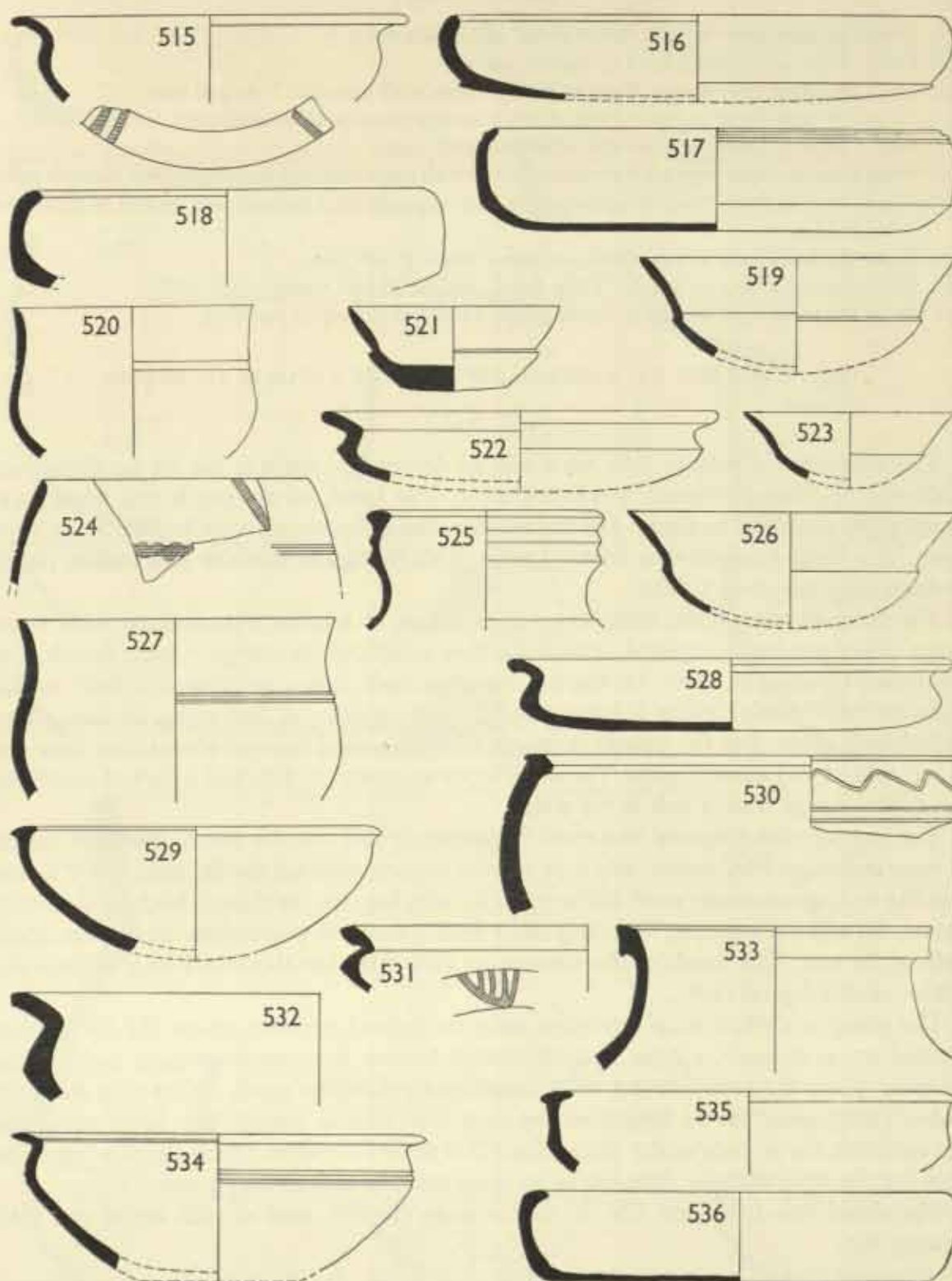


FIG. 49. Pottery from Ch. V: 515-16 from layer 14; 517 from layer 12; 518-19 from layer 11; 520 from layer 10; 521-36 from layer 9. $\frac{1}{4}$.

549. From the same layer as 548. 'Tulip Bowl' of reddish ware.
 550. Ch. V, layer 4. Grooved bowl of reddish ware.
 551. From the same layer as 550. Bowl of reddish ware with rounded T-shaped rim.
 552. From the same layer as 550-1. Rim of large storage jar of reddish buff ware.
 553. Ch. V, layer 3. Small bowl or cup of reddish buff ware.
 554. From the same layer as 553. Club-rimmed bowl with horizontal and waved grooves. Reddish ware.
 555. Ch. V, layer 2. Small bowl of reddish ware with expanded rim painted with groups of transverse black lines.
 556. From the same layer as 555. Small carinated bowl of buff ware.
 557. From the same layer as 555-6. 'Tulip Bowl' of reddish buff ware.
 558. From the same layer as 555-7. Small grooved bowl of smoothed red ware.

(iii) FRAGMENT OF A SMALL BOWL WITH FIGURES IN RELIEF ✓

(Pl. XIX)

This fragment of pottery calls for a special description since it has no parallels from Chārsada or from previously published sites. The bowl, of a smooth red fabric, was presumably moulded to shape. On the outside, three figures in relief remain from what must have been a continuous frieze. Inside, a single figure survives in a sunken panel, perhaps originally one of four.

The three figures on the outside are clearly part of a scene representing some ritual event. They are highly stylized, and this makes it difficult to interpret some details, but the broad meaning is clear. To the left stands a male figure wielding a cutlass; on his right are two female figures holding hands. These appear, at first sight, to have short, bell-shaped skirts, but the plastic representation of sexual features shows that they are, in fact, naked and steatopygous. The male wears some sort of kilt, and a curved sheath for the cutlass hangs from a belt at his waist.

The two left-hand figures (the third is damaged) and the one inside the bowl appear to wear animal or bird masks, one type for the women, another for the man, but it is here that the stylization causes most difficulty. The man has two (or three?) backward-curving horns, the women a longer, drooping affair with a series of projections on the top, and a bulb at the end. The hands of the women are claw-like, but this could be a stylistic and not an ornithological trait.

The group as a whole must represent some local ritual or dance, where the participants dressed up as animals, a type of performance known from many ancient and modern societies. From the subcontinent itself, beast-men are known much earlier than this from Indus Valley seals.¹ Some figures on the seals even have a 'pigtail' that looks rather like the masks on the women under discussion.² But in its context at Chārsada, this fragment, both for the style and the meaning of its decoration, is quite exceptional.

The sherd was found on Ch. V, in pit 9-10 (fig. 7), and should be of the third century B.C.

¹ J. Marshall, *Mohenjo-daro and the Indus Civilization*, iii, pl. cxi. 356, 7; cxvii. 16. E. J. H. Mackay, *Further Excavations at Mohenjo-daro*, ii, pl. lxxxix. 347.

² Mackay, *op. cit.*, pl. lxxxvii. 235, and especially pl. xcix A.

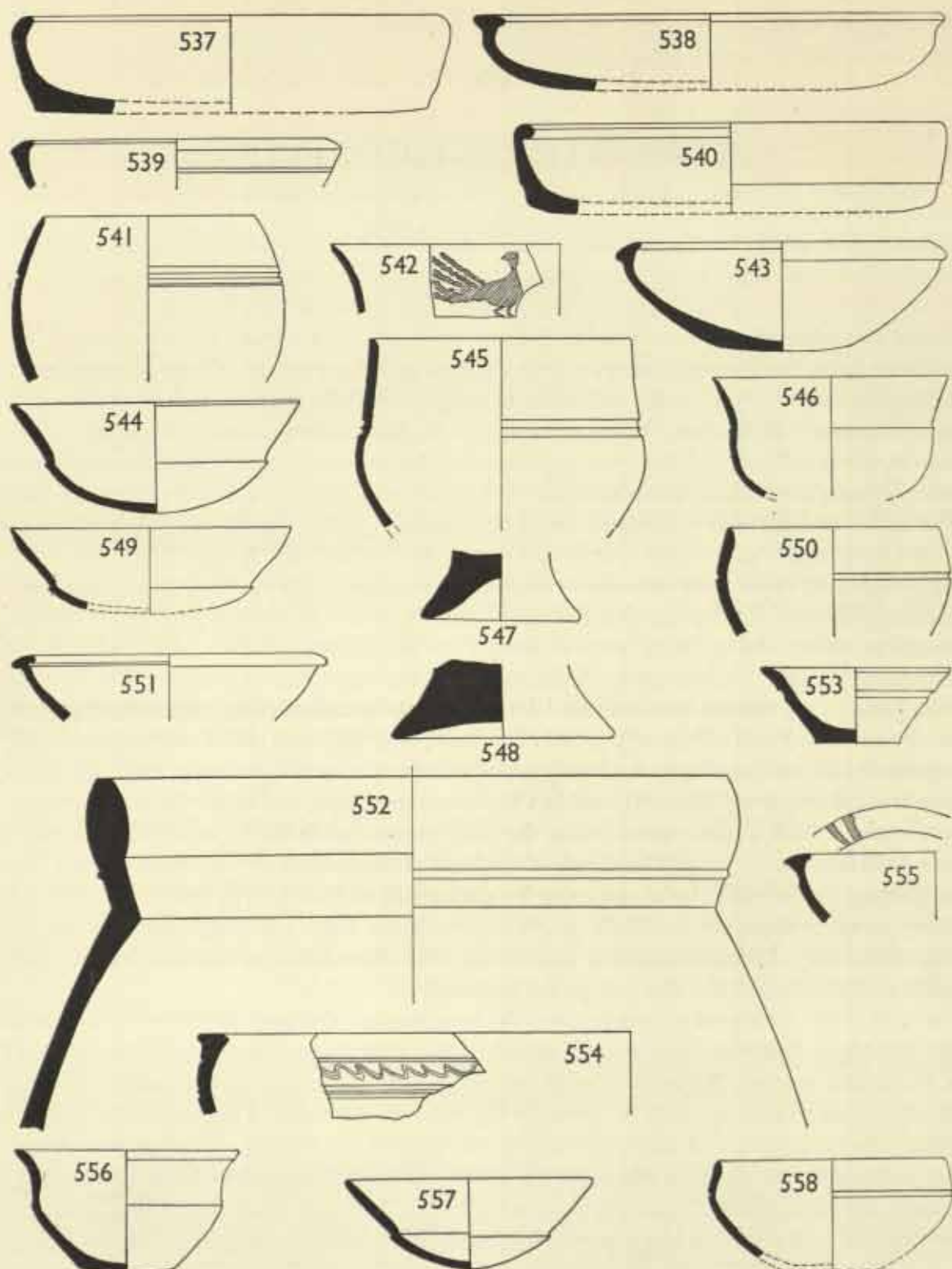


FIG. 50. Pottery from Ch. V: 537-9 from layer 8; 540-3 from layer 7; 544-7 from layer 6; 548-9 from layer 5; 550-2 from layer 4; 553-4 from layer 3; 555-8 from layer 2. $\frac{1}{2}$.

IX

TERRACOTTA FIGURINES

(i) *The 'Baroque Ladies'*

(Pls. XX-XXII)

THIS is the nickname given by us to a distinctive group of female figurines which has long been known to characterize the frontier region and deserves the honour of a sobriquet. The figurines are 6-7 in. long, are made of smooth well-levigated clay, and have a rich reddish colour. They were first described by A. K. Coomaraswamy in 1928.¹ Their features are as follows: (1) the nose is prominent, made by pinching the clay together so that it forms a projection continuous with the forehead; (2) the eye is formed by applying a flat pellet and gashing it more or less horizontally; (3) the mouth is small and inconspicuous; (4) there are one or more large ear-rings; (5) the hair hangs down laterally in long braids; (6) there are from one to four large necklaces; (7) the breasts are small and separately affixed; (8) the navel is not indicated; (9) there is often a girdle on the hips, sometimes shown by a single incised line; (10) immediately below, the pudenda are sometimes, though not invariably, indicated; (11) the legs taper and are separated by an incised line; (12) anklets are indicated by horizontal incisions; (13) the arms are horizontally extended and are merely pointed stumps; (14) the head-dress includes normally a separately affixed rosette on each side and sometimes a third (generally missing) above the centre (alternatively it may resemble a three-pointed tiara, and other variations occur); (15) a chain or sash is often worn across the body somewhat in the form of a St. Andrew's cross, held together front and back below the level of the breasts by a perforated boss (this feature may be indicated by incisions or by dark paint or both); (16) finally, the figure is steatopygous, sometimes markedly so. The cruciform sash has been identified as the characteristically Indian ornament known as the *channavira*, which occurs on early Indian sculptures and in later Indian art generally.

In view of the recurrent steatopygy and the frequent emphasis of the pudenda, the usual view that these figurines are a manifestation of the widespread nature-goddess cult need not be further argued. What their religious status may have been at Chārsada—whether still actually objects of worship or, perhaps like the little pipe-clay Venuses of the Western Roman world, considered rather as traditional good-luck charms—cannot be guessed. They may, as has been urged, represent the Iranian or Scythian goddess Anāitis or Anahid.² Anyway, with variations, these little figures with their 'baroque' head-dresses and jewellery were certainly produced in large quantities for the protohistoric inhabitants of the North-

¹ 'Archaic Indian Terracottas', in *IPEK*, 1928 description in a number of details.)

(Leipzig), pp. 65 ff. (I have modified Coomaraswamy's

² D. H. Gordon in *Iraq*, v (1938), 88.

West Frontier region. Most of them come from sites west of the Indus. Not more than two or three seem to have been found during the very extensive excavation of Taxila, 50 miles to the east of that river.

What was their date? On technical and stylistic grounds which have no validity, Coomaraswamy was inclined to assign them to the second millennium B.C. In 1932 the late Col. D. H. Gordon ascribed similar figurines from Sarī Dheri, about $4\frac{1}{2}$ miles from Chārsada, to 'a period between 100 B.C. and 100 A.D.'.¹ His conjecture was only a little more firmly founded than Coomaraswamy's but his intuition was certainly much nearer the mark. In 1937 Col. Gordon extended his inquiry to material—not all of it identical—from Taxila and carried his initial date for the group back to 200 B.C., i.e. to the last decades of the Bhīr Mound.² In the same year, Mlle Simone Corbiau, after somewhat haphazard excavations at Sarī Dheri where many examples have been found, sought to attach them once more to the third millennium;³ and brought a riposte from Col. Gordon, who reaffirmed his ascription to a date after 200 B.C.⁴ There, on a basis of conjecture and counter-conjecture, the matter has remained.

The recent excavations have at last given the problem a more objective definition. It is only fair indeed to recall how Col. Gordon long ago observed in this connexion that 'the one thing now lacking is excavation in Chārsada conducted in the light of modern knowledge'.⁵ A proviso may be added: the careful analysis of stratification may be expected to show when a given type of terracotta figure *first appeared*; it is a less reliable witness to a terminal date. In all ages, children and others have picked up these attractive and portable objects as toys or curiosities, and have dropped them again in strata of a date much later than those to which they properly belong. The process continues actively at the present day, and must be borne in mind in an assessment of the evidence.

That evidence is now as follows. In the key-section, Ch. I, 'Baroque Ladies' occurred in layers 22 (1 example), 21 (5), 20 (2), and 19 (2). In other words, seven of them occur with Northern Black Polished Ware and 'Lotus Bowls', one occurs with 'Lotus Bowls' without Northern Black Polished Ware, and one occurs in the layer immediately above the highest (latest) Northern Black Polished Ware and 'Lotus Bowls'. Since only two Northern Black Polished Ware sherds were found in the section, the duration of the ware cannot here be stressed, but the evidence of the contemporary 'Lotus Bowls' is abundant and emphatic. The outside brackets implied by these associations are something like 250–100 B.C. (see p. 41).⁶

Ch. IIA produced a fragment from layer 8A immediately above 'Lotus Bowl' sherds in layer 9. Another fragment came from layer 4, 3 ft. above 'Lotus Bowls'.

¹ 'Terra-Cottas from Sari Dheri, North-West Frontier Province', in *Journ. Roy. Anthropological Inst.* lxii (1932), 165.

² 'The Mother-goddess of Gandhara', in *Antiquity*, xi (1937), 77. Marshall in publishing the Taxila examples (*Taxila*, ii. 440) adds nothing.

³ 'New Finds in the Indus Valley', in *Iraq*, iv (1937), 1 ff.

⁴ 'The Age of Frontier Terra-Cottas', *ibid.*, v (1938), 85 ff.

⁵ *Antiquity*, xi (1937), 78.

⁶ The lower parts of two figurines probably of the same class come from the top of Ch. I, Pit B (Islamic). Their occurrence in this medieval (or later) layer is obviously an example of accidental survival out of context.

Ch. IIB (only partially dug) yielded one specimen in the second layer from the top. This is well above the 'Lotus Bowls' of layer 9, 3-4 ft. farther down; it is unlikely therefore to have been deposited much before the end of the second century B.C. and may be somewhat later. This was not an occupation-site in the full sense of the term, however, and the occurrence of pottery was chancy.

Ch. IIIA-F produced half a dozen specimens, but only in layers due to modern disturbance. They must therefore be discounted.

Ch. IV was also much disturbed, and the eleven specimens from its upper layers (1 and 3) cannot safely be dated by association. It may be noted without emphasis that layer 3 also produced a sherd of Northern Black Polished Ware. The fillings of the two wells D and E, however, were intact, and both produced a quantity of 'Lotus Bowls' in proximity to 'Baroque Ladies': three of the figurines at a depth of 18-21 ft. in Well D, and two at a depth of 12 ft. in Well E. The latter also yielded the silver tetradrachm of Menander (c. 155-130 B.C.) at a depth of 10 ft. 10 in. in the filling, which was sufficiently uniform in character to suggest continuous dumping.

Ch. V, the house, produced sixteen of the ladies. Eight of them belong to the final Phase V and were associated with a sherd of Northern Black Polished Ware and 'Tulip Bowls'. Seven others belonged to Phase IV, which produced four sherds of Northern Black Polished Ware and several 'Lotus' and 'Tulip' bowls. One other came from the make-up on Phase III and may belong either to that or to the succeeding phase. From the same horizon came a good sherd of Northern Black Polished Ware.

If all this evidence is now added up, it proves the contemporaneity of the 'Baroque Ladies' with Northern Black Polished Ware and 'Lotus Bowls' at Chārsada, without prejudice to occasional survival (as on Ch. IIA and B). On my dating, this implies that they came in sometime during the third century B.C. and lasted until the latter part of the second century B.C. Of this century they were pre-eminently characteristic, though it may be suspected that Indo-Greek modes began to supersede them after the Bactrian conquest of the Frontier and the Punjab (by Demetrios II?) at some disputed date in the earlier half of the century. Col. Gordon's intuition as to the initial date was not far out, though evidence of the effective survival of the type, as postulated by him, into the Christian era is at present lacking.

'BAROQUE LADIES' AND ALLIED TYPES

(Distributed over pls. XX-XXV)

Pls. XXA and XXI. 1. From Ch. IV, Well D, depth 18 ft. Formerly two (or three) rosettes in the hair, two broad necklaces, and vertical sash or scarf between the breasts. No sign of the *channavira*, and no indication of the pudenda.

Pl. XXB. 1. From Ch. V, Phase V (latest), Pit C. Typical 'baroque' head, formerly with three rosettes.

- Pl. XXB. 2; also pl. XXI. 2. From Ch. I, layer 20. Tricorn head-dress. Two neckbands. Body missing.
- Pl. XXI. 3. From Ch. I, layer 21. Tricorn head-dress, with two lateral rosettes. Broad neckband. Body missing.
- Pl. XXI. 4. From Ch. I, layer 21. Head-dress with three linked rosettes. Body missing.
- Pl. XXI. 5. From Ch. I, layer 21. Decoration of head-dress uncertain. Broad neckband. Body missing.
- Pl. XXI. 6. See p. 109.
- Pl. XXI. 7. From Ch. I, layer 21. The lower part probably of a figurine of this class.
- Pl. XXI. 8 and 9. From Ch. I, layer 1, pit B. The lower parts of two figurines of this class preserved obviously out of context in a medieval or later pit.
- Pl. XXII. 1. From Ch. IV, layer 3, in disturbed area. Head formerly with two lateral rosettes. Multiple neckbands.
- Pl. XXII. 2. Also from Ch. IV, layer 3. Head with tricorn head-dress.
- Pl. XXII. 3. Also from Ch. IV, layer 3. Head with two lateral rosettes, broad neckband, and punctured breasts.
- Pl. XXII. 4. From Ch. IV, filling of Well D. Head formerly with three linked rosettes.
- Pl. XXII. 5. From Ch. IV, layer 3. Head with tricorn head-dress.
- Pl. XXII. 6-7. See p. 109.
- Pl. XXII. 8. From Ch. IV, layer 1, in disturbed filling. Lower part of 'baroque' figurine.
- Pl. XXII. 9. From Ch. IV, disturbed layer 3. Ditto, showing steatopygy.
- Pl. XXII. 10. From Ch. IV, disturbed layer 1. Ditto.
- Pl. XXII. 11. From Ch. IV, disturbed layer 3. Ditto.
- Pl. XXIII. 1. From Ch. IV, disturbed layer 1. Head with head-dress in the form of a series of rosette-like disks. Ear-ring and neckband.
- Pl. XXIII. 2. From Ch. V, Phase V (latest). Neckband, and incised *channavira*.
- Pl. XXIII. 3. From Ch. V, Phase V (latest). Head-dress formerly with three rosettes. Ear-rings and neckband.
- Pl. XXIII. 4. From Ch. V, Phase IV. Fragmentary head.
- Pl. XXIII. 5. From Ch. V, Phase V. Fragmentary head with two neckbands and vertical sash between the breasts, which are punctured.
- Pl. XXIII. 6. From Ch. V, Phase V. Fragmentary head with rosette-like roundels. Ear-rings.
- Pl. XXIII. 7. From Ch. V, Phase V. Pinched-up face with ringlets.
- Pl. XXIII. 8. From Ch. V, Phase V. Fragmentary head with ear-rings and broad neckband.
- Pl. XXIII. 9. From Ch. V, Phase V. Fragmentary head with tricorn head-dress.

- Pl. XXIII. 10. From Ch. V, Phase III. Fragmentary head and body with neckband. Eyes were apparently applied.
- Pl. XXIII. 11. From Ch. V, Phase IV. Headless variant with hypertrophied hips and buttocks.
- Pl. XXIII. 12. See below, p. 109.
- Pl. XXIII. 13. See below, p. 109.
- Pl. XXIV. 1. From Ch. IIB, layer 2. Fragment of variant head.
- Pl. XXIV. 2. From Ch. IIA, layer 8A. Fragmentary neck and chest.
- Pl. XXIV. 3. From Ch. IIA, layer 9. Much worn head and shoulders; traces of applied eyes.
- Pl. XXIV. 4. From Ch. IIH, disturbed layer 2. Fragmentary head and chest.
- Pl. XXIV. 5. From Ch. IV, disturbed layer 1. Fragmentary head.
- Pl. XXIV. 6. From Ch. IIIB, disturbed layer 4. Crude and damaged head and chest.
- Pl. XXIV. 7. From Ch. IIA, layer 4. Lower part of legs with striations representing anklets.
- Pl. XXIV. 8. From Ch. IIIG, disturbed layer 1. Graceful waist and legs, probably of a 'baroque' figurine. The *channavira* is incised and painted, and anklets are represented.
- Pl. XXIV. 9. From Ch. IIIA, disturbed layer 1. Fragment showing vertical scarf, girdle, and pudenda.
- Pl. XXV. 1. From Ch. V, Phase V (latest). Fragmentary head and chest, probably with tricorn head-dress.
- Pl. XXV. 2. From Ch. V, Phase I. Lower part of figure showing pudenda.
- Pl. XXV. 3. From Ch. V, Phase I. Headless and abraded body with punctured *channavira*.
- Pl. XXV. 4. From Ch. V, Phase I. Body with neckband and punctured breasts.
- Pl. XXV. 5. From Ch. V, Phase I. Chest with neckband.

(ii) *Half-figures*

(Pl. XXV. 6-10)

Contemporary with the foregoing are some thirty half-figurines which are in fact one half—usually the left half—of a 'Baroque Lady', designed to show the figure in profile (pl. XXV. 6-10). These profiles have been made by modelling or casting half of one of the 'baroque' figures and scraping the wet clay, before baking, to a flat surface along the median section of the legs and body. The treatment of the head is not at present known; only one half-figure is preserved as high as the shoulder (pl. XXV. 9), where the usual short pointed arm is represented. It was at first thought that the demi-figures were uncompleted whole figures, on the supposition that these were made in two halves which

were subsequently brought together, the joint being smoothed out before baking; but there is no hint that the whole figures were in fact manufactured thus in two halves, and the baking of so many half-figures sufficiently shows that they were regarded as independent units for display as profiles.

The half-figures are readily picked up on the surface today, and two of them occurred with Islamic material in Pit B at the top of Ch. I. But other stratified occurrences indicate their proper context. Two were found on Ch. IIA in layer 14A, i.e. in the first layer above the 'rippled rims' of layer 15. Another was produced by layer 13 on the same site, and two more by layer 4. On the chronology here adopted, this would be consistent with dates in the third and second centuries B.C. On Ch. IV eleven were found in the mixed filling, layers 1-3, for which a date between 300 and 150 B.C. seems probable, and two were found in the second-century B.C. filling of Well E. In the accumulative house of Ch. V, six examples were found in Phases IV and V, which run into the second century B.C. In view of the uniformity of the type as preserved, particularization of the individual examples can serve no purpose.

(iii) *Other Human Figurines*

Other terracotta human figurines fall into mixed categories, and are here described in the sequence in which they are illustrated.

- Pl. XXI. 6. Female figurine with large ear-rings, deep neckband, pointed arms, punctured breasts, girdle, and splayed legs. But for the last feature, the type falls into line with the 'Baroque Ladies'. From Ch. I, layer 21, with a Northern Black Polished sherd and 'Lotus Bowls'; i.e. between 300 and 150 B.C.
- Pl. XXII. 6. Male figurine with head-dress knotted on left side of head and applied and gashed eyes; arms and legs missing. The lop-sided head-dress is characteristic of sculptures of the Sunga period and later (second to first centuries B.C.). From Ch. IV, layer 1, in the mixed layers of this site, with material dominantly of the earlier half of the second century B.C.
- Pl. XXII. 7. Head with head-dress lumped on right side of head. This is unusual; the normal side is the left. From Ch. IV, Well D, with filling of the second century B.C.
- Pl. XXIII. 12. Headless female with broad neckband, *channavira*, exaggerated hips, and leg-ornaments (?) up to the thighs. From Ch. V, Phase V, third century B.C., with Northern Black Polished sherds.
- Pl. XXIII. 13. Fiddle-shaped figurine with pinched-up nose, neckband, and plain dotted *channavira* and girdle; pointed arms and no legs. Simple legless figures of this general type have been found at Sarī Dheri,¹ Taxila (Bhīr Mound),² and elsewhere. In some cases, they may come from 'ritual tanks'.³ Their date at the Bhīr

¹ *Iraq*, iv (1937), pl. iv. 4.

² Marshall, *Taxila*, ii. 442.

³ *Ibid.*, 464 and pl. 136, nos. 158-9.

- Mound is presumably prior to 150 B.C., but the ritual tanks at Sirkap may be first century B.C. or even later. From Ch. V, Phases IV-V, earlier half of second century B.C.
- Pl. XXVIA. 1. Part of a female figurine with heavy neckband and pendant and tightly enveloping drapery. The left hand holds a bird. From the top layer of Ch. IIA and not, therefore, firmly sealed. Three comparable though not identical examples, also with a bird on the left hand, are published from the Taxila Bhīr Mound where they are presumably not later than the second century B.C. They recalled to Marshall 'a familiar type of Aphrodite',¹ but the hint of Western influence may or may not be significant.
- Pl. XXVIA. 2. Fragment of highly simplified figurine with punctured outline of neckband and pendant and a circular ornament (misplaced breasts?) on each hip. From mixed material in Ch. IIIA.
- Pl. XXVIA. 3. Small crude figurine, probably a pregnant female. From Ch. I, layer 39, associated with 'soapy red' ware and $1\frac{1}{2}$ ft. above the latest 'rippled rims'. A date early in the third century B.C. would be consistent with this position on the chronology here adopted.
- Pl. XXVIA. 4. Simple female figurine with bluntly pinched-up nose, slashed mouth, tall head-dress, heavy ear-rings, pendant arms, and splayed legs. From Ch. I, layer 16, immediately below the 'Gandhāra' layers. The layer should date from the first or second century A.D.
- Pl. XXVIA. 5. Fragment of grotesquely crude figurine from the medieval Pit B at the top of Ch. I.
- Pl. XXVIA. 6. Head pegged for attachment. Too worn for comparison but of a relatively sophisticated type. From the top 2 ft. of the filling of Well E on Ch. IV, and may therefore not be earlier than the middle or latter half of the second century B.C.
- Pl. XXVIA. 7. Head clumsily modelled but in a good tradition. From mixed material in Ch. IIIF.
- Pl. XXVIA. 8. Highly simplified (almost featureless) head and shoulders with peg-arms. From mixed material in Ch. IIIB.
- Pl. XXVIA. 9. Body of male figurine with neckband and outstretched arms. From the mixed top-filling of the defensive ditch on Ch. IIIK.
- Pl. XXVIA. 10. (Also pl. XXVIB. 1.) Bearded head with distended ears and lop-sided head-dress; pegged for attachment. From Phases IV-V of the house on Ch. V. Early second century B.C.
- Pl. XXVIA. 11. Body of seated figure with neckband and left hand across the front. From the top layer of Ch. IIA and therefore not firmly sealed. Probably first centuries B.C. to A.D.
- Pl. XXVIA. 12. Fragment of squatting figurine from the latest Phase (V) of the house on Ch. V. Early to middle second century B.C.

¹ *Taxila*, ii. 447.

Pl. XXVIA. 13. (Also pl. XXVIB. 2.) Grotesque head with pointed skull or cap and open mouth. From Phase IV of the house on Ch. V; c. 200 B.C.

Pl. XXVIA. 14. Body of male figure. From the mixed layers of Ch. IV, with material of third to second centuries B.C.

Pl. XXVII. Some or all of the figures on this plate represent archers. Nos. 1 and 2, of highly simplified form, are pierced through the right shoulder, possibly for the attachment of a wooden bow. No. 1 comes from Phase III of the house on Ch. V and may be dated therefore to the latter part of the third century B.C. No. 2 comes from Ch. I, layer 20, which produced 'Lotus Bowls' and a sherd of Northern Black Polished Ware. On the present dating it may be ascribed to the third to early second century B.C.

No. 3, with strangely simplified head, has two piercings. It comes from the same layer as no. 1.

No. 4 is less certainly an archer but has a similarly grotesque head. From a mixed layer on Ch. IIIE.

No. 5 is of a slightly more advanced type but retains the simple pinched-up face, with pellet eyes. From Ch. I, layer 22, with 'Lotus Bowls' and immediately below a layer containing a sherd of Northern Black Polished Ware. Third to second centuries B.C.

No. 6 has the rudimentary outstretched arm pierced for a wooden bow. From the disturbed layers on Ch. IV with pottery of the third to second centuries.

No. 7 is from the same disturbed layers as no. 6.

No. 8 may not be an archer but is of a similar crude type. It is from the same disturbed layers as nos. 6-7.

Pl. XXVIII. These figurines are all or mostly monkeys. No. 1 is from Ch. I, layer 21, with 'Lotus Bowls' and a sherd of Northern Black Polished Ware. Third to second centuries B.C.

No. 2 (monkey?) is from mixed material on Ch. III.

No. 3 is from the disturbed layers on Ch. IV with material of the third to second centuries B.C.

No. 4 is from Ch. I, layer 9, of undefined post-'Gandhāra' date. It may be described vaguely as early medieval.

No. 5 is an uncertain figure from the latest Phase (V) of the house on Ch. V.

No. 6 is from the same layer as no. 5.

(iv) *Animal Figurines*

Pl. XXIX. 1. Horse with high arched neck and nose pierced for bridle. From Phase III-IV of house on Ch. V, with 'Lotus Bowls'. Probably third century B.C.

Pl. XXIX. 2. Similar to preceding but with more clearly defined ears and eyes. From Phases IV-V of house on Ch. V, with Northern Black Polished Ware and 'Lotus Bowls'. Third to second centuries B.C.

- Pl. XXIX. 3. Head of horse with elaborate head-dress and head-collar, and pierced nose. From Phase V of house on Ch. V. Second century B.C.
- Pl. XXIX. 4. Head of horse similar to no. 2. From the disturbed layers of Ch. IV, with material of the third to second centuries B.C.
- Pl. XXIX. 5. Head of horse (?) comparable with no. 2. From same deposit as no. 4.
- Pl. XXIX. 6. Head of horse comparable with no. 2. From same deposit as nos. 4-5.
- Pl. XXIX. 7. Head of horse with horned head-dress, brow-band, applied eye, and pierced nose. From mixed layer on Ch. III.
- Pl. XXIX. 8. Small head of horse (?). From Phase V of house on Ch. V. Second century B.C.
- Pl. XXX. 1. Part of horse with head-collar and saddle. From Ch. I, layer 12, a foot above the 'Gandhāra' layers. Late Kushāṇa or early medieval.
- Pl. XXX. 2. Horse's head with head-stall. From Ch. IIB, layer 4. Probably second to first centuries B.C.
- Pl. XXX. 3. Crude horse's head with pierced nose. From Ch. I, layer 21, with a Northern Black Polished sherd and 'Lotus Bowls'; c. third century B.C.
- Pl. XXX. 4. Part of horse with head-collar. From Pit B at the top of Ch. I, with Islamic material.
- Pl. XXX. 5. Horse with arched neck, head-dress, head-collar, and other harness, including saddle. From a mixed deposit on Ch. III.
- Pl. XXX. 6. Part of horse's head with head-collar and pierced nose. From Ch. I, layer 10. Post-'Gandhāra'.
- Pl. XXX. 7. Part of horse's head with head-collar. From Ch. I, layer 4. Islamic.
- Pl. XXX. 8. Saddled horse. From Pit B at the top of Ch. I, with Islamic material.
- Pl. XXX. 9. Horse from same deposit as no. 8.
- Pl. XXXI. 1. Part of humped ox, pierced through nose and hump for attachment to model cart. From Ch. I, layer 22, with 'Lotus Bowls' and immediately below lower Northern Black Polished sherd; c. early third century B.C.
- Pl. XXXI. 2. Part of humped ox with pierced nose. From Phase V of the house on Ch. V. Second century B.C.
- Pl. XXXI. 3. Bull's head with pierced nose. From the same layer as no. 2.
- Pl. XXXI. 4. Bull's head with head-collar. From Pit B at the top of Ch. I, with Islamic material; possibly out of context (cf. no. 9, below).
- Pl. XXXI. 5. Forepart of an animal with scored indications of a rough coat. From a mixed deposit on Ch. III.
- Pl. XXXI. 6. Part of a humped bull with solid legs pierced for wheels. Toys of this kind are an Indian tradition as old as the Indus Civilization. At Taxila, the type was

common on the Bhīr Mound but occurred only once at Sirkap; it should therefore date not later than the second century B.C. From the disturbed deposit on Ch. IV, with material of the third to second centuries B.C.

Pl. XXXI. 7. Part of small animal with foot-stand. From Phase IV of the house on Ch. V; c. late third to second centuries B.C.

Pl. XXXI. 8. Animal's head, possibly leopard. From Phase V of the house on Ch. V. Second century B.C.

Pl. XXXI. 9. Bull's head with head-collar, similar to no. 4. From Phase I of the house on Ch. V. Possibly early third century B.C.

Pl. XXXIIA. (Also pl. XXXIII. 1, and fig. 51, 7.) Dog, lying. This is a masterly little sketch of a dog looking up sharply from a recumbent posture. From Ch. IV, layer 8, an undisturbed and early level, with material of the third century B.C., probably early in the century.

Pl. XXXIII. 2. Grotesque dog with elaborate collar. From Ch. I, layer 4, with Islamic material.

Pl. XXXIII. 3. Crude figure of a dog with pellet-eyes. From Phase III of the house on Ch. V. Third century B.C.

Pl. XXXIII. 4. Body and perky tail of a dog. From Ch. I, layer 4, with Islamic material.

Pl. XXXIII. 5. Dromedary with saddle-cloth round the hump. From Pit B high up on Ch. I, with Islamic material.

Pl. XXXIII. 6. Two-humped camel with the forward hump in a collapsed position. From a mixed deposit on Ch. III.

Pl. XXXIIb represents elephants, solid and hollow. At Taxila, similar elephants are particularly common on the Bhīr Mound but occur also at Sirkap.

Pl. XXXIIb. 1. From the disturbed levels on Ch. IV, with material of the third to second centuries B.C.

Pl. XXXIIb. 2 served as the spout of a pot. From Phase V of the house on Ch. V. Second century B.C.

Pl. XXXIIb. 3. From a mixed deposit on Ch. III.

Pl. XXXIIb. 4. From the same disturbed levels as no. 1, above.

Pl. XXXIIb. 5. From a mixed deposit on Ch. III.

Pl. XXXIV represents ram's-head lugs from pots. Examples at Taxila all come from the Bhīr Mound and presumably there antedate the middle of the second century B.C. This agrees with the Chārsada dating. For undated examples from Sarī Dheri, see *Journ. Roy. Anthropological Inst.* lxii (1932), 169-70.

Pl. XXXIV. 1. From Ch. I, layer 10, which is $1\frac{1}{2}$ ft. above the 'Gandhāra' layers and may be of late Kushāṇa or early medieval date. The fragment is probably not in context (cf. nos. 4-8, below).

- Pl. XXXIV. 2. From a mixed deposit on Ch. III.
- Pl. XXXIV. 3. With a collar in black paint. Also from a mixed deposit on Ch. III.
- Pl. XXXIV. 4. From the disturbed deposit on Ch. IV, with material of the third to second centuries B.C.
- Pl. XXXIV. 5. With black paint round the horns. From Phase V of the house on Ch. V. Second century B.C.
- Pl. XXXIV. 6. With dark paint on the horns and muzzle. From Phase II of the house on Ch. V. Third century B.C., perhaps early in the century.
- Pl. XXXIV. 7. With traces of dark paint. From the disturbed deposit on Ch. IV, with material of the third to second centuries B.C.
- Pl. XXXIV. 8. From the same deposit as no. 7.

(v) *Miscellaneous Terracottas*

- Pl. XXXV. 1. Schematic bird with rounded body pierced for wheels. Toys of this kind are an ancient Indian tradition. Similar birds occur at Taxila on the Bhīr Mound, where they are ascribed to 'the Mauryan stratum' (approximately third century B.C.). From Ch. I, layer 7, with Islamic pottery but presumably not in context.
- Pl. XXXV. 2. Similar bird from Phase V of the house on Ch. V. Second century B.C.
- Pl. XXXV. 3. Comparable bird or animal from Phases IV-V on Ch. V. Early second century B.C.
- Pl. XXXV. 4. Similar bird from Ch. I, layer 18, between the Northern Black Polished and 'Gandhāra' periods. Perhaps first centuries B.C. to A.D.
- Pl. XXXV. 5. Cogged or smooth-tyred terracotta wheels are abundant at Chārsada and on many other sites. They were used for birds and animals such as the preceding and for carts as in pl. XXXVIA. 1, below. From the disturbed layers of Ch. IV, with third- to second-century B.C. material.
- Pl. XXXV. 6. Wheel from Ch. I, layer 6, with Islamic material. It may or may not be in context.
- Pl. XXXV. 7. From the same deposit as no. 5, above. Third to second centuries B.C.
- Pl. XXXV. 8. Small peacock on pedestal.
- Pl. XXXVIA. 1. Part of toy cart, reassembled with wheels. From Phase V of the house on Ch. V. Second century B.C.
- Pl. XXXVIA. 2-4. Square-sectioned pyramidal 'weights'. These are common at Chārsada but their function is not clear. They are of varying size, but too light for normal use as loom-weights. The examples illustrated are all from mixed deposits on Ch. III, but they also occur on Ch. I, layers 22-24, with 'Lotus' and 'Tulip' bowls, just below

the lower of the two Northern Black Polished sherds; on Ch. IV with third- to second-century material; and on Ch. V in Phases II-V. Apart from stray survivals, it is evident that they were used in the third and second centuries B.C.

(vi) *Head of Alexander the Great*

(Pl. XXXVIb)

As an appendix to the terracottas may be included a moulded head which was applied at the base of the handle of a jug or amphora of hard grey ware. It shows a youthful face, unfortunately damaged, surmounted by a lion's-mask head-dress, and may reasonably be identified as Alexander the Great in the guise of Heracles. It was certainly made in the Greek world but unhappily it comes from the mixed material on Ch. III and so is not independently dated. It may be compared with the head of Heracles-Alexander on the base of a pottery handle at Taxila, found in the latest stratum of the Bhīr Mound, where it should presumably belong to the second century B.C.¹

¹ Marshall, *Taxila*, ii. 433, and iii, pl. 130, f (no. 226).

X

TERRACOTTA AND STONE BEADS

FOUR main types of bead were found, normally of terracotta but occasionally of stone.

- (i) Biconical, either plain or simply incised.
- (ii) More or less biconical with central notched band.
- (iii) Asymmetrical beehive-shaped.
- (iv) Similar but with a more or less pronounced collar at one or both ends, round the opening.

Of these Type iv, with the pronounced collar, was found exclusively in the Islamic layers of Ch. I or in the mixed deposit which included much Islamic material on Ch. III. Its medieval or later date is therefore probable.

The other types occasionally occur in late layers but are certainly at home in the earlier layers. Type i goes back to the beginning of Ch. I, i.e. on our present chronology to the sixth century B.C. It continues, however, until the latest rebuilding of the house on Ch. V, i.e. well into the second century B.C. It was clearly a long-lived unspecialized type.

Type ii, with the central notched or cogged band, does not occur earlier than Ch. I, layer 28, where it is found with 'Tulip' cups and does not long precede the 'Lotus Bowls' of third- to second-century date. Its earliest date therefore should be some time in the third century B.C. but it continued well into the second century B.C.

Type iii occurs on Ch. I between layers 38 and 14. It thus began soon after the end of the 'rippled rims', i.e. about the end of the fourth century B.C., and lasted on into the 'Gandhāra' layers (second to fourth century A.D.) where four specimens were found. Bead-types are prone to an excessive durability.

Except where otherwise mentioned, the examples illustrated are of terracotta.

Pl. XXXVII. 1. Type i; plain biconical. From the top layer of Ch. I, with Islamic material. (Out of context?)

Pl. XXXVII. 2. Type i; biconical with finger-nail incisions. From Ch. I, layer 51, the lowest layer but one. Probably sixth century B.C.

Pl. XXXVII. 3. Type i; biconical with bordered zigzags and oblique strokes round the piercing. From Ch. I, layer 16, immediately below the 'Gandhāra' layers. Possibly first century A.D.

Pl. XXXVII. 4. Type i; biconical with concave cones. From Pit B at the top of Ch. I, with Islamic material.

Pl. XXXVII. 5. Type i; flat biconical with slightly concave cones. From Ch. I, layer 21, with a Northern Black Polished sherd and 'Lotus Bowls'.

Pl. XXXVII. 6. Type i; plain biconical. From the mixed deposit on Ch. III.

- Pl. XXXVII. 7. Type i, variant; circular with biconical trend, and with central groove and lateral striations showing remains of white filling. From the mixed deposit on Ch. III.
- Pl. XXXVII. 8. Type i; biconical with oblique striations varying in direction and retaining traces of white filling. From Ch. I, layer 37, with carinated bowls but above the 'rippled rims'. Perhaps *c.* 300 B.C.
- Pl. XXXVII. 9. Type i; biconical with concave striated cones. From the mixed deposit on Ch. III.
- Pl. XXXVIII. 1. Type i; biconical with hatched incised semicircles on each cone, the striations bearing traces of white filling. From the mixed deposit on Ch. III.
- Pl. XXXVIII. 2. Type i; biconical with striated cones and traces of white filling in the striations. From Phase V of the house on Ch. V. Second century B.C.
- Pl. XXXVIII. 3. Type i, variant; flat biconical, of schist, with carefully incised circles and groups of zigzag striations, the incisions all with white filling. From the mixed deposit on Ch. III.
- Pl. XXXVIII. 4. Type ii, variant; biconical with central cord on obliquely striated. From Phases IV-V of the house on Ch. V. Probably early second century B.C.
- Pl. XXXVIII. 5. Type ii; biconical with notched band round junction of cones. From the mixed deposit on Ch. III.
- Pl. XXXVIII. 6. Type ii; biconical with notched band round junction of cones. From Phases IV-V on Ch. V. Probably early second century B.C.
- Pl. XXXVIII. 7. Type ii; biconical with notching round junction of cones. From the mixed deposit on Ch. III.
- Pl. XXXVIII. 8. Type ii; biconical (almost cylindrical) with boldly notched band round junction of cones. From Ch. I, layer 28, with 'Tulip' cups. Possibly early third century B.C.
- Pl. XXXVIII. 9. Type ii; flat biconical with central notching. From Phase IV of the house on Ch. V. Possibly early second century B.C.
- Pl. XXXIX. 1. Type iii; beehive-shaped, of stone. From Ch. I, layer 38, shortly subsequent to the end of 'rippled rims'; *c.* 300 B.C.
- Pl. XXXIX. 2. Type iii; beehive-shaped, of schist, with central groove flanked by double zigzags with traces of white filling. From Ch. I, layer 17, 2 ft. above the later of the two Northern Black Polished sherds from this site and one foot below the lowest 'Gandhāra' relics; *c.* first century B.C. to A.D.
- Pl. XXXIX. 3. Type iii; beehive-shaped with triple zigzags containing remains of white filling. From the disturbed layer 4 on Ch. IV, with third- to second-century material.
- Pl. XXXIX. 4. Type iii; beehive-shaped, of schist, with longitudinal groove flanked by circles and rough hatching, all the incisions showing white filling. From Ch. I, layer 36, 4 ft. above the latest 'rippled rims'. Possibly early third century B.C.

- Pl. XXXIX. 5. Type iii, variant; roughly beehive-shaped, of stone, with casual groups of three oblique incisions. From Ch. I, layer 33, midway between 'rippled rims' and Northern Black Polished sherds. Possibly mid-third century B.C.
- Pl. XXXIX. 6. Type iii, variant; sharply lop-sided beehive-shaped with two central grooves; notably well-made. From Ch. I, layer 14, with 'Gandhāra' material; *c.* second to fourth century A.D.
- Pl. XXXIX. 7. Type iii, variant; flattened beehive-shape with two grooves; one of three specimens from the same layers. From Ch. I, layer 20, with a Northern Black Polished sherd and 'Lotus Bowls'. Probably *c.* 200 B.C.
- Pl. XXXIX. 8. Type iv; turned bead, slightly asymmetrical, with collars at both ends. From Ch. I, layer 5, with Islamic material.
- Pl. XXXIX. 9. Type iv, variant; vase-shaped asymmetrical bead with three grooves. From the mixed deposit on Ch. III.
- Pl. XXXIX. 10. Type iv; turned head of similar shape with collar at each end. From Ch. I, layer 6, with Islamic material.
- Pl. XXXIX. 11. Type iv; asymmetrical with collar at one end. From the mixed deposit on Ch. III.
- Pl. XXXIX. 12. Type iv; turned bead with collar at one end. From Ch. I, layer 6, with Islamic material.
- Pl. XXXIX. 13. Type iv; rough bead with heavy collar at one end. From the mixed deposit on Ch. III.
- Pl. XXXIX. 14. Turned discoidal bead of chalcedony from the same mixed layer as no. 13.

XI

MISCELLANEOUS SMALL FINDS

Fig. 51

1. SOCKETED iron spearhead, from Ch. I, layer 29. This layer immediately preceded the earliest appearance of 'Tulip Bowls' on the site, and may be dated to the latter part of the fourth or the beginning of the third century B.C. Tanged spearheads, like tanged arrowheads, are more normal than the socketed variety in ancient India. The preference for the tang, at any rate for arrowheads, may be due to the common use of reeds or bamboo rather than hard wood for the shaft.¹ Socketed spearheads are recorded, however, from Taxila, Nevasa, and other sites of the first century B.C. onwards, and certainly occurred also earlier, as here.
2. Two-pronged and socketed iron flesh-hook, from Ch. V, layer 3, second century B.C.
3. Tanged iron arrowhead with triangular blade, from Ch. V, layer 2, second century B.C. The type occurs on the Bhīr Mound at Taxila prior to the latter part of the second century B.C.
4. Tanged iron arrowhead with lozenge-shaped blade, from Ch. V, layer 2, second century B.C.
5. Tanged iron arrowhead with leaf-shaped blade of quadrangular section, from Ch. V, layer 2, second century B.C. The quadrangular section occurs on the Bhīr Mound at Taxila prior to the latter part of the second century B.C.
6. Terracotta dabber or *konora*, stamped with a rosette, from a mixed deposit on Ch. IIIB. This instrument, usually of terracotta but sometimes of stone, was (and is) used by the potter for thinning out the walls of vessels. When the pot is too deep for the arm to reach, a crooked stick is inserted into the socket at the top. At Taxila several examples were found at Sirkap, *c.* second century B.C. to second century A.D.²
7. Terracotta dog, from Ch. IV, layer 8, *c.* third century B.C. See p. 113 and pl. XXXIIA.
8. Steatite lamp, from a pit at the top of Ch. I. See p. 124 and pl. XLIV, 1.
9. Red pottery lamp, from a mixed deposit on Ch. IIIA. See p. 124 and pl. XLIV, 2.

Fig. 52

10. Schist lamp or pedestal for a Śiva-lingam, from Ch. I, layer 14. See p. 123 and pl. XLII, 2.
11. Schist lamp, from a mixed deposit on Ch. IIID. See p. 124 and pl. XL D.
12. Part of an ivory pyxis, rebated for a lid, from Ch. I, layer 23. This layer immediately precedes the appearance of 'Lotus Bowls' on the site, and may be placed in the third century B.C.

¹ On this see J. Marshall, *Taxila*, ii. 547.

² Ibid. 424 and 502.

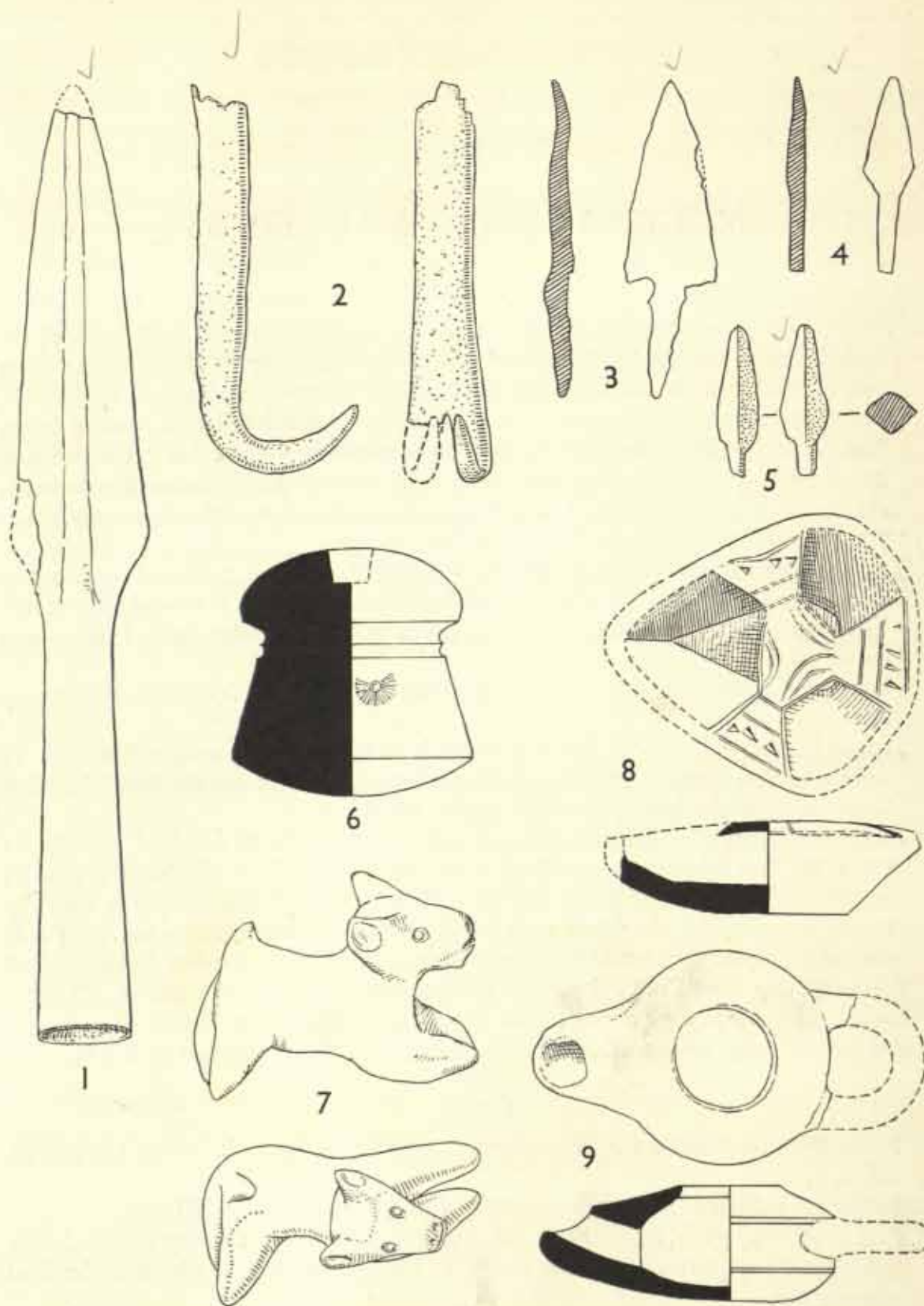


FIG. 51. 1, iron spearhead; 2, iron flesh-hook; 3-5, iron arrowheads; 6, terracotta dabber; 7, terracotta dog; 8, steatite lamp; 9, pottery lamp. $\frac{1}{4}$.

13. Ribbed shell bangle, from Ch. I, layer 14, of the 'Gandhāra' period, c. second to fourth century A.D.
14. Ribbed bangle of black glass, from Ch. I, layer 8, early medieval but not more nearly datable.
15. Bangle of black glass with angular central rib, from Ch. V, layer 1, late second century B.C.
16. Glass bangle with flat rib, which is seamed diagonally with bands of red, white, and black, from Ch. I, layer 18. This layer is above the latest 'Lotus Bowls' and Northern Black Polished Ware (layers 22-20) in the section but below the 'Gandhāra' layer (14). It may be ascribed roughly to the first centuries B.C. to A.D.
17. Similar but smaller glass bangle, from Ch. V, layer 2, middle or second half of the second century B.C.
18. Similar glass bangle from a mixed deposit on Ch. IIIB.

NOTE: *Glass bangles occur in the subcontinent before c. 500 B.C.,¹ but striated examples like our 16-18 are hard to parallel.*

Sealings (pl. XLA)

Two seal-impressions were found, both on unbaked clay which by a happy chance has survived.

- Pl. XLA. 1. Impression of a lion, proudly standing or walking left. The style is that of the Achaemenid tradition. From Phase IV of the house on Ch. V; late third or early second century B.C.
- Pl. XLA. 2. Impression of an oval Greek seal, with holes at the back through which the cord of the package has passed. The figure is that of Athene armed with helm, spear, and shield, facing right, and possibly with a snake below the shield. Nine comparable but somewhat inferior intaglios, two probably representing Athene, were found in a hoard at Taxila (Sirkap) and were dated there to the first century A.D.² From Ch. I, layer 18, midway between the 'Northern Black Polished' and 'Gandhāra' layers and datable approximately to the first centuries B.C. to A.D.

Clay Spoon (pl. XLB)

A rough terracotta spoon with circular bowl was found in Ch. IIIA, layer 10, which is an extension of Ch. I, layer 51, the lowest layer but one on this key-site. The type, in this material, is exceptional. It dates from the early days of the Bālā Hīṣār and may be ascribed to the sixth century B.C.

¹ J. Marshall, *Taxila*, ii. 684-5. Marshall says: 'Bangles of sea-green glass make their appearance in the Bhīr Mound about the 4th century B.C. and are not uncommon down to the beginning of the 2nd century B.C. . . . Other colours are amber, violet, black and

yellow.' See also B. B. Lal, 'Excavation at Hastināpura', in *Ancient India*, nos. 10-11 (1954-5), p. 13, where two bangles, of brown and black glass respectively, are ascribed to Period II, with Painted Grey Ware.

² Marshall, *Taxila*, ii. 650, and iii, pl. 207, 10 a-i.

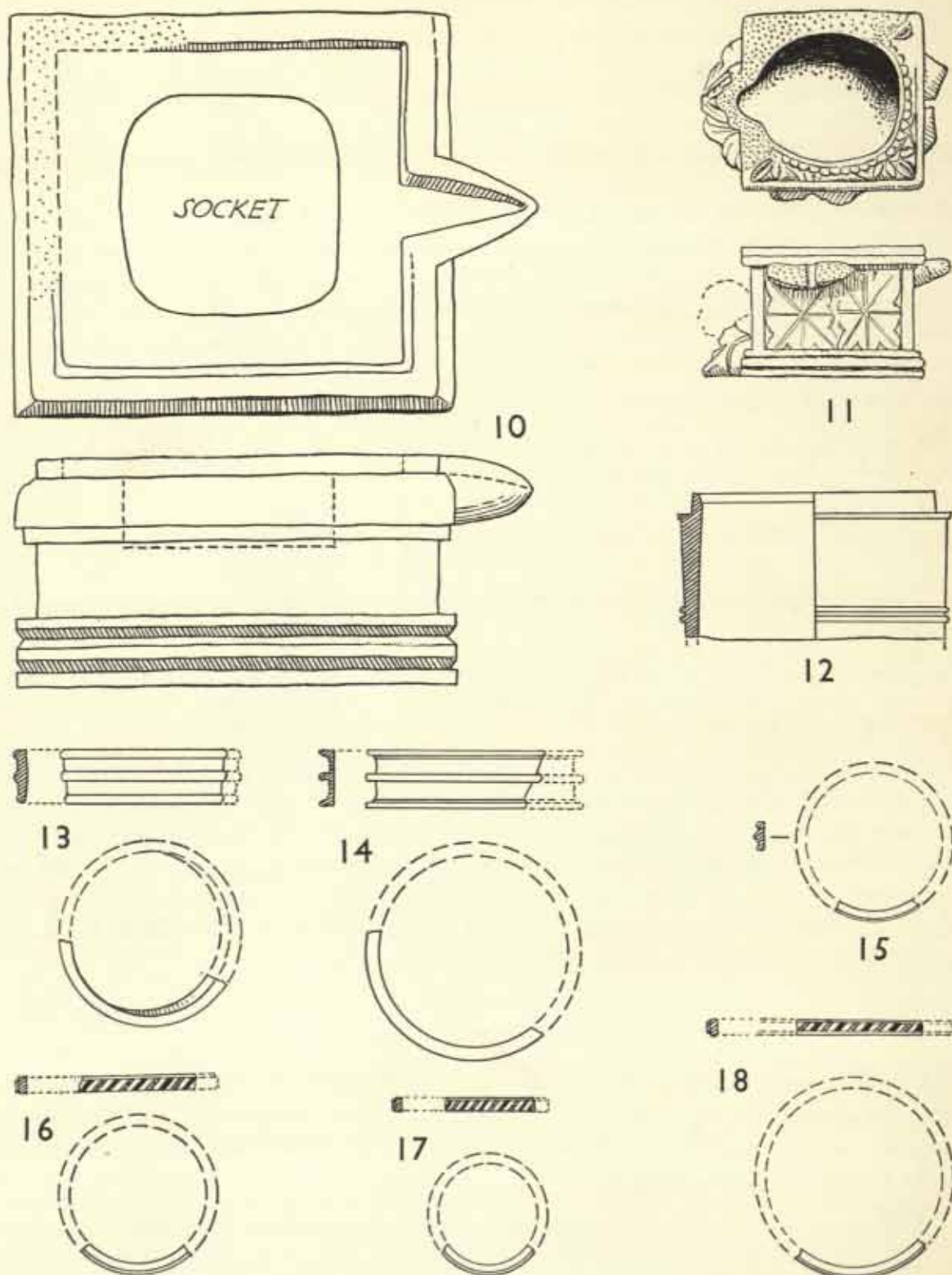


FIG. 52. 10, schist pedestal or lamp; 11, schist lamp; 12, ivory pyxis; 13, shell bangle; 14-18, glass bangles. $\frac{1}{4}$.

Toilet-Tray (pl. XLc)

A fragment of a schist toilet-tray of a type familiar on Buddhist and related sites in Gandhāra and beyond was found in Ch. I, layer 15, immediately underlying the layer (14) which contained characteristic 'Gandhāra' schist carvings. The latter are here bracketed broadly between the second and fourth centuries A.D., and a date in the first to second century A.D. would be a reasonable ascription for the somewhat earlier tray. Thirty or forty of these trays were found at Taxila (Sirkap),¹ where they are mostly attributed to the first centuries B.C. to A.D.; but their dating is there based largely upon typology and a splendid opportunity to date them objectively was missed. A comparable tray in ivory has been found as far west as Hatra in Iraq.² The present fragment seems to represent a girl playing a musical instrument (bima?), with a drum beside her.

Alabaster Statuette (pl. XLI)

A much worn and headless statuette of Heracles, or of a figure in the guise of Heracles, was found in the top two feet of the filling of Well E on Ch. IV. The figure is nude save for a lion-skin, of which the head hangs down over the left shoulder. The work is of crude Mediterranean type, and it or its artist was an importation from the Greek world. It was found 10 ft. above a tetradrachm of Menander in the same filling, and is unlikely to have reached its position before the latter part of the second century B.C.

Mr. S. E. Ellis, of the Department of Mineralogy in the British Museum (Natural History), reports that the material is a massive granular yellowish-white gypsum-rock (alabaster). Owing to well-marked veining and parting, the stone is of poor quality for sculptural or ornamental purposes and no doubt contributed to the poverty of the workmanship. Unfortunately, with the comparative examples available the material cannot be specifically located. Massive gypsum is of frequent occurrence at certain horizons in the Mesozoic succession in the folded mountain zone stretching from the Balkans through Asia Minor and Persia, and also in many surrounding countries (e.g. the Apennines, Palestine, the Punjab). The poor quality of the stone does, however, seem to preclude origin from any of the well-known classical sources of fine alabaster.

Gandhāra Carvings

These schist carvings are of types characteristic of the Gandhāra region in the Kushāṇa and sub-Kushāṇa periods. The works of the Gandhāra School, familiar though they be in the museums of Asia and Europe, have never been placed in a firm chronological context; the sad fact remains that not a single productive Buddhist site in Gandhāra has yet been excavated by modern techniques. Even the wide brackets here adopted—second to fourth century A.D.—for the stone sculptures may be inexact, though it seems likely that a majority of them falls within those limits.

¹ Marshall, *Taxila*, ii. 493-8, and iii, pls. 144-6; also Islay Lyons and Harald Ingholt, *Gandhāran Art in Pakistan* (New York, 1957), pp. 176-8, nos. 479-88. ² Ill. *London News*, 24, xii (1954), 1161, fig. 7; D. Schlumberger, *Syria*, 1960, p. 297.

- Pl. XLII. 1. Bearded head and shoulders in high relief, representing a very secular individual of Silenus type with a palm-branch, presumably as a fly-whisk, in the right hand and a mug in the left. The ultimate origin of the subject is doubtless Western. Secular figures and episodes form a recognized substratum in Gandhāra art and do not necessarily imply non-Buddhist patronage. From Ch. I, layer 14.
- Pl. XLII. 2 and fig. 50, 10. Square receptacle with roughly squared cavity and a spout on one side. This may be a lamp, but the roughness of the cavity suggests that it more probably held a Śiva-lingam with a characteristic runaway for the liquid offerings. The occasional admixture of Hindu elements with the Buddhist is not unfamiliar; it was doubtless aided by the polytheistic tendencies of the Kushāṇa dynasty itself, of which the fifth representative, Vāsudeva I, bore a frankly Hindu (Vaishṇava) name in spite of the family's extensive patronage of Buddhism. From Ch. I, layer 14.
- Pl. XLIIIA. Figure of a worshipper with hands clasped in the typical gesture of devotion, from a Buddhist scene. The workmanship is crude but true to pattern. From Ch. I, layer 14.
- Pl. XLIIIB. Much abraded shaft from a column framing a Buddhist scene. It may have been used secondarily as a pestle. From Ch. I, layer 14.
- Pl. XLII and fig. 50, 11. Square lamp of schist with projecting spout upheld by a human bust, head damaged. Beading and floral patterns surround the hollow, and lugs formerly extended from three of the sides for suspension. Comparable stone lamps with heads under the spouts were found on the Dharmarājikā site at Taxila, where 'none can be assigned to an earlier date than the 2nd century A.D.'¹ The present example is from the mixed deposit on Ch. III.

Lamps (Pl. XLIV and fig. 51, 8-9)

In addition to the schist lamp or lamps mentioned above, two further lamps may be noted.

- Pl. XLIV. 1 and fig. 51, 9. Red pottery lamp of late classical type not likely to be earlier than the third century A.D., and possibly later. From the mixed deposit (layer 2) on Ch. IIIA.
- Pl. XLIV. 2 and fig. 51, 8. Soapstone (steatite) lamp with three conjoined handle-straps. An almost identical lamp was found in Marshall's 1903 excavations;² no information is given as to its location, but two vaguely analogous examples of schist, each with three lug-ears pierced for suspension, were found at Taxila (Sirkap). Marshall observes that 'lamps do not appear to have been made of stone until the Śaka-Parthian period [first centuries B.C. to A.D.], when schist and other soft stones came into use for the manufacture of many household utensils'.³ From Pit B at the top of Ch. I,

¹ Marshall, *Taxila*, ii. 500, and iii, pl. 142, nos. 116-17b. and fig. 24, 16.

³ Marshall, *Taxila*, ii. 500, and iii, pl. 141, no. 110.

² *Arch. Survey of India, An. Report*, 1902-3, p. 184

with much Islamic material. The lamp may, however, be out of context, and is not unlikely to date from the early centuries A.D.

Coin

Tetradrachm (silver) of Menander (c. 155-130 B.C.), found at a depth of 10 ft. 10 in. in the filling of Well E on site Ch. IV. Condition: good.

Obv. Diademed bust of the king facing left, holding a javelin in the right hand.

Legend: ΒΑΣΙΛΕΩΣ ΣΩΤΗΡΟΣ ΜΕΝΑΝΔΡΟΥ

Rev. Pallas standing to left with aegis on outstretched left arm and hurling thunderbolt with right hand. In the field to the right is a monogram as in Whitehead (below).

Legend: Kharoshthī equivalent of above.

R. B. Whitehead *Catalogue of Coins in the Punjab Museum, Lahore*, I, Indo-Greek Coins (Oxford, 1914), p. 55, no. 382, pl. VI. (Note kindly supplied by Dr. John Walker, F.B.A., Keeper of Coins and Medals in the British Museum.)

XII

GRAFFITI

(Pl. XLV)

FIVE sherds bore graffiti, three in Kharoshthī and one in Brāhmī script but unhappily all uninformative. Notes on them have most courteously been provided independently both by Sir Harold Bailey and by M. Raoul Curiel (lately Archaeological Adviser to the Pakistan Government), both of whom have struggled patiently with the inadequate and often dubious evidence. In the following notes I have appended the initials 'H.B.' or 'R.C.' to indicate authorship.

Pl. XLV. 1. Surface find. Inscription incised after the application of the pinkish buff slip but before firing.

The inscription is probably lacunary on the left, and contains now four Kharoshthī aksharas. The first akshara is *ni* or *ni*; lower part broken. The *i*-stroke crossed the upright; the latter is slightly curved and seems to bend forward. The shallow upper curve opening to the right and the forward slope of the upright point to a pre-Kushāṇa date.

The second akshara seems to contain two elements. First, a lower part which is clearly *ya*; it is angular, as in early inscriptions. Secondly, an upper horizontal stroke, which is difficult to interpret. It is not a vocalic sign; it might be either an element of ligature reduced to a flat stroke, or one of those diacritical marks, mostly of uncertain significance, which are often met with in such inscriptions. The inscription is too carefully incised for the akshara to be interpreted as a flattened form of *bha*, or as a *ca*.

The third akshara is *dra*, or *da*, according as the bottom horizontal stroke has or has not a phonetical value. The ductus is here also characteristic of a pre-Kushāṇa date.

The fourth akshara is *sa*. Here again, the top of the upright joining with the curved stroke, thus closing the loop, and the well-marked small vertical stroke at the top point to a pre-Kushāṇa date.

The inscription is too short and incomplete for interpretation, but it was probably a personal name. This could be a genitive in *-asa*. It could also, and more probably, be a nominative ending either in *-dasa*, representing Sanskrit *-dāsa* (or Greek *-δος* or *-δης?*), or in *-drasa* (Greek *-δρος*, *-δρης?*). The ductus of the inscription points to an early, possibly Indo-Greek, date. (R.C.)

Kharoshthī script. The first sign is clearly *ni*. The second sign seems most likely to be *bha*. The form quoted from Aśoka Kharoshthī inscription G. Bühler, pl. I,

col. I, no. 28, can be compared, if the right lower stroke were written higher. The ending *-asa* is genitive singular to a stem in *-a-*. Accepting now M. Curiel's *dra* for the third sign, the result would be *nibhadrasa*. This could be read as <Ma>*nibhadrasa* 'of Mañibhadra', or supplemented by some other syllable to give a name ending in *bhadra-* which is frequent. The Greek words in Kharoshthī inscriptions are put in the *-a-* declension as *μεριδάρχης* into *meridarkha-* from *-ης* and *θεόδωρος* into *theudora-* from *-ος*. Hence I should hesitate to accept M. Curiel's second view that the *-sa* could be the Greek nominative ending *-ς*. (H.B.)

Pl. XLV. 2. Surface find. Inscription incised after the application of the pinkish buff slip but before firing.

The inscription contains one Kharoshthī akshara: *mi*. (R.C.)

This could be Kharoshthī *mi*. The *-i* stroke is thrust through *m*. Note that elsewhere the *ma* is more cursive. (H.B.)

Pl. XLV. 3. Surface find. Graffito scratched after baking.

If this is not a potter's mark it could be compared with *śa* in Aśoka Kharoshthī (G. Bühler, pl. I, no. 35, first sign). A more cursive top is common later.

Note however also Brāhmī *śa*. (H.B.)

Pl. XLV. 4. From a depth of 15 ft. in Well E on Ch. IV, 5 ft. below a tetradrachm of Menander in the same uniform filling, which may be ascribed probably to the latter part of the second century B.C. The inscription was scratched after baking.

The inscription is in Brāhmī, and may be lacunary on the left. It contains four aksharas which seem to read *ra to ba ko*. The shape of the letters points to a date prior to first century A.D. (R.C.)

Four Brāhmī letters. The first two are not at once clear. If the first is the *ka-* sign the lower stroke at left would be non-significant. M. Curiel's *ra* is equally possible. The second letter is the *ta* sign with a stroke through the top which is perhaps better read *to* with M. Curiel. The third and fourth letters are clear *ba* and *ka*. Neither *rato(ta)baka* nor *kato(ta)baka* suggests a word to me. (H.B.)

Not illustrated. Sherd of 'soapy red' ware from Ch. IIA, layer 11, which is probably not later than the beginning of the third century B.C. Roughly scratched graffito after firing.

Three signs: two of them recall Kharoshthī *ya* and *tha*. The third is unclear, if Kharoshthī. (H.B.)

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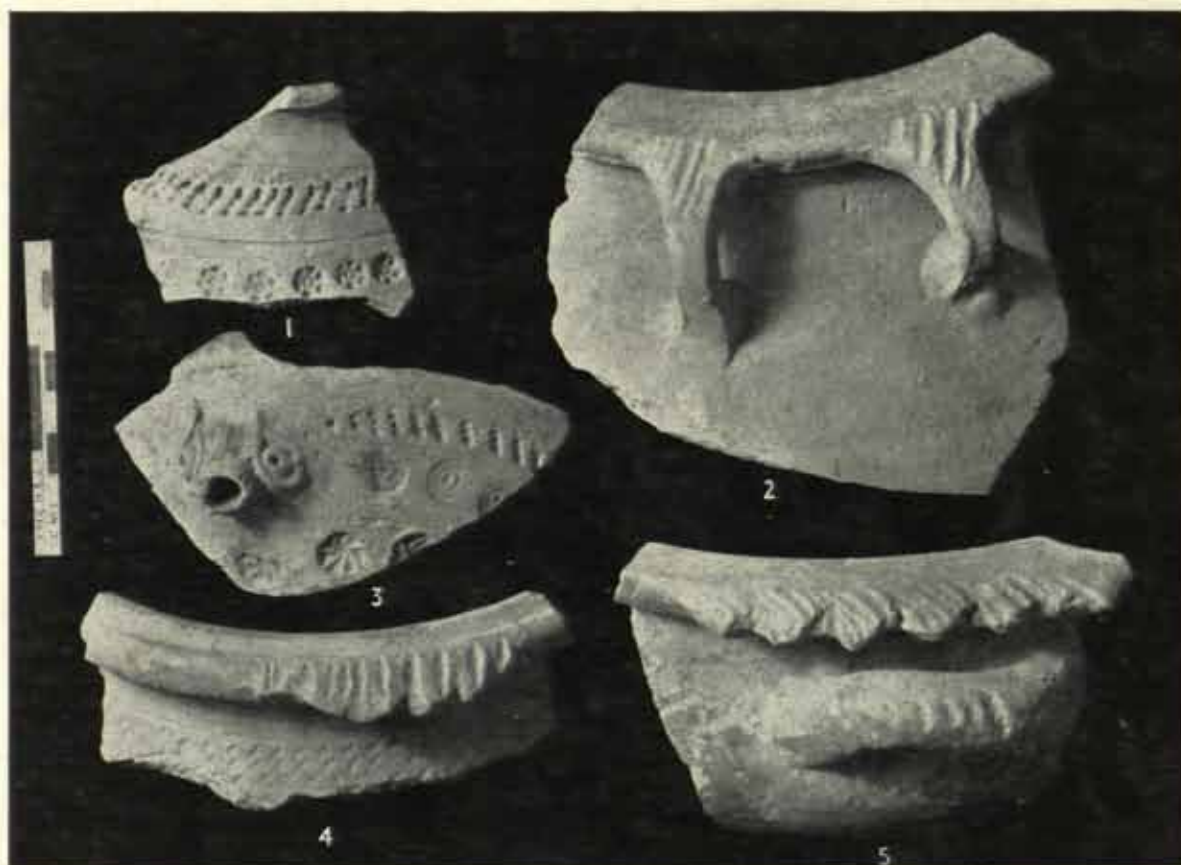
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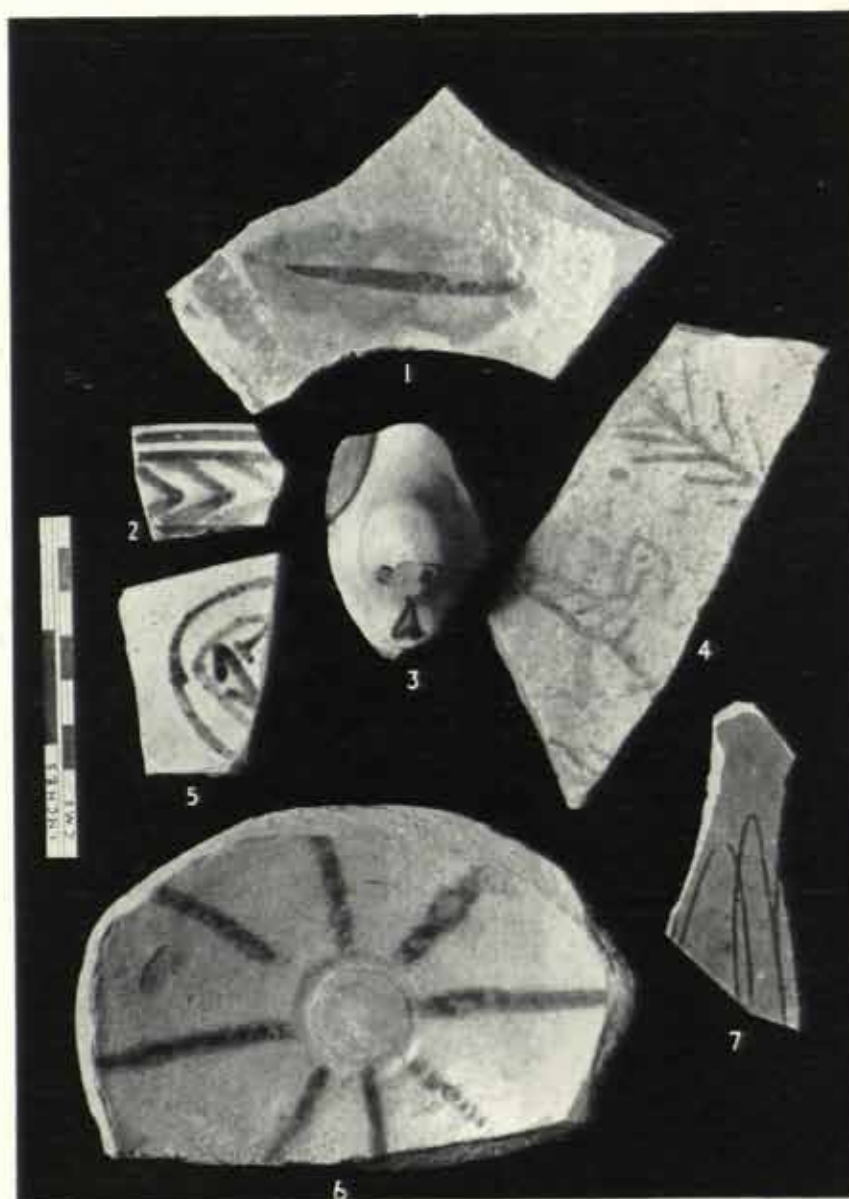
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p. 102



CHT 18
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A

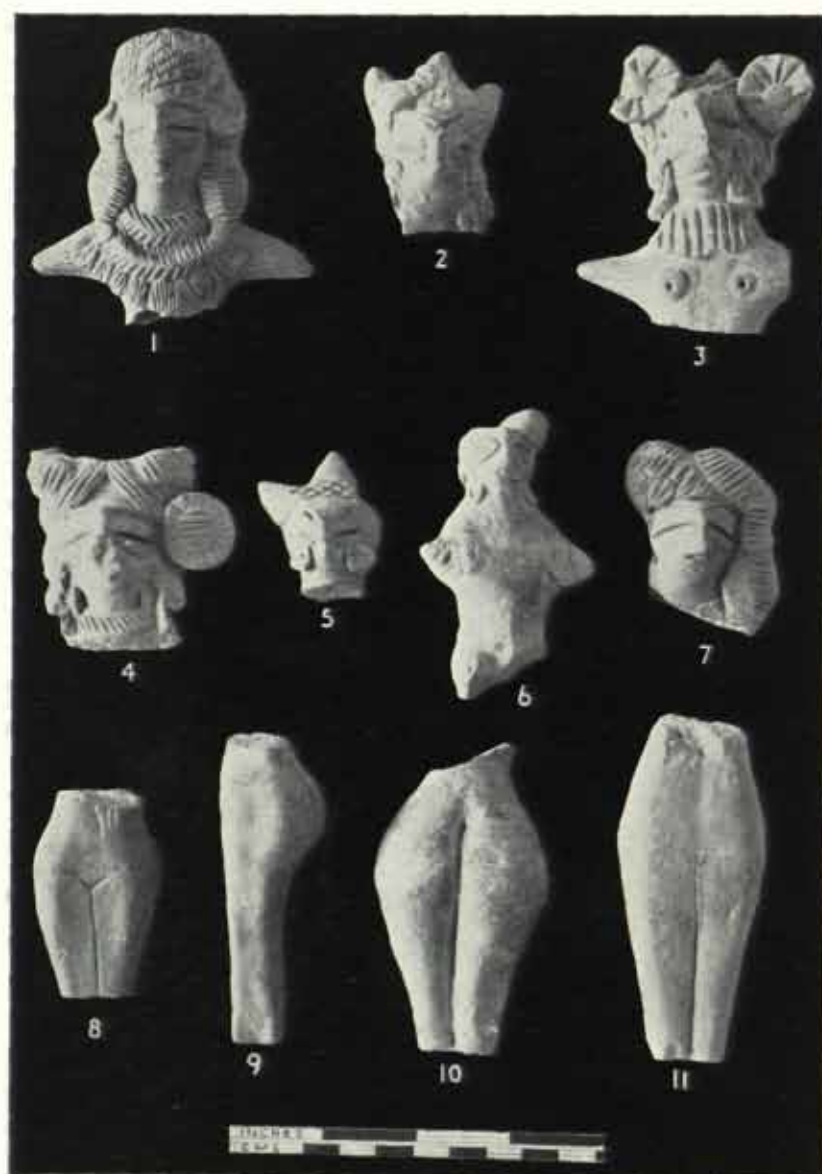


B

Terracotta figurines. $\frac{1}{4}$. See p. 106



Terracotta figurines. See p. 106



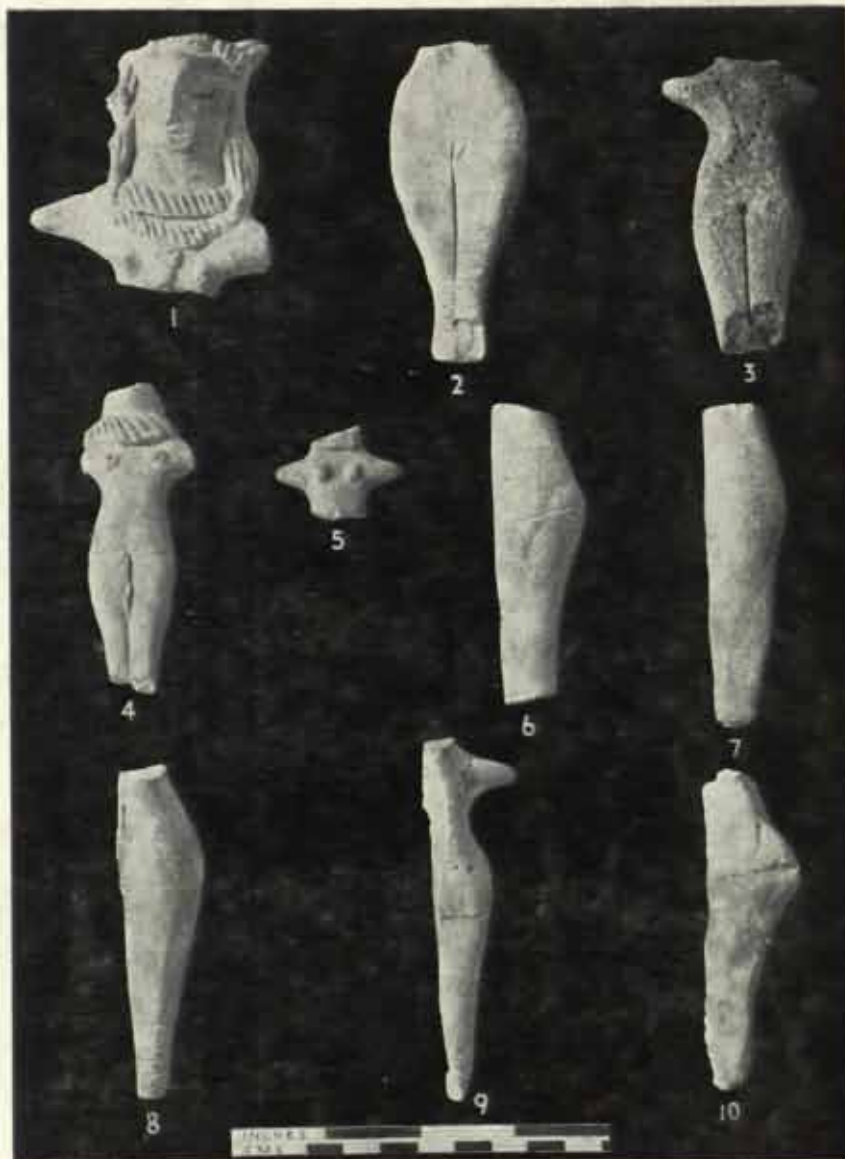
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A



B

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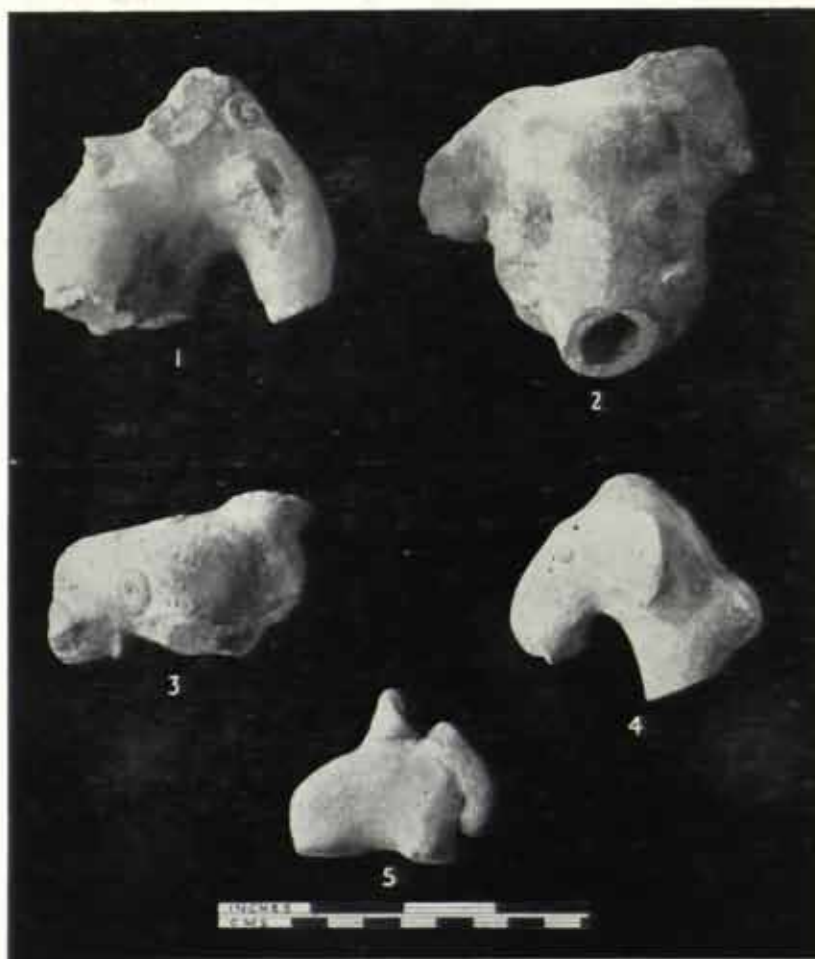
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A

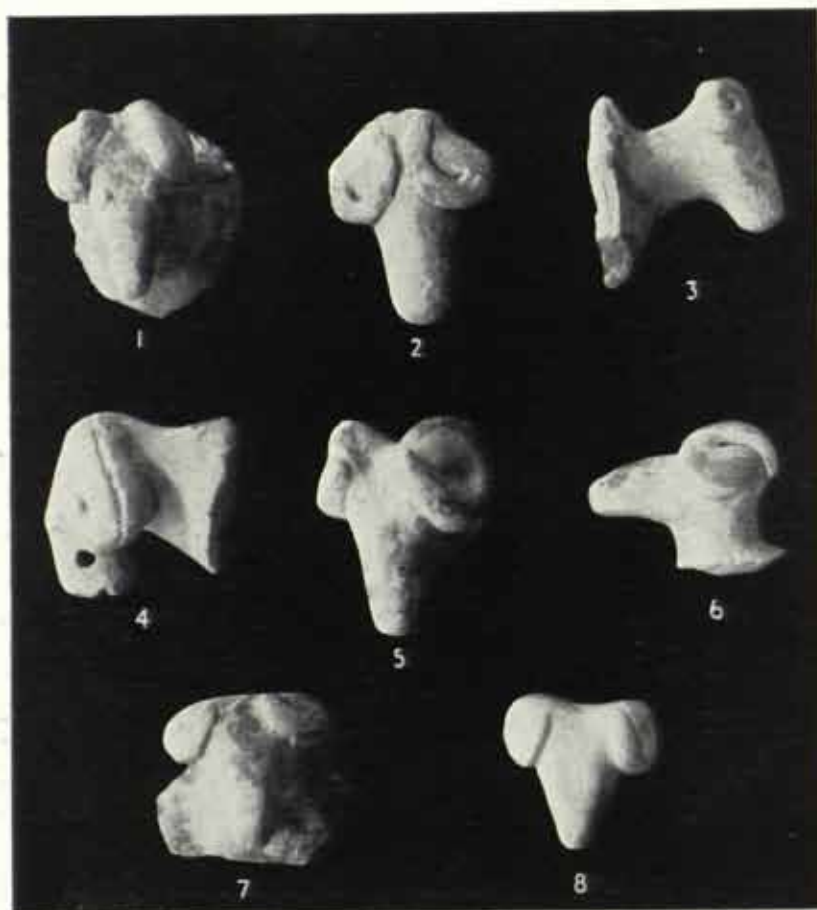


B

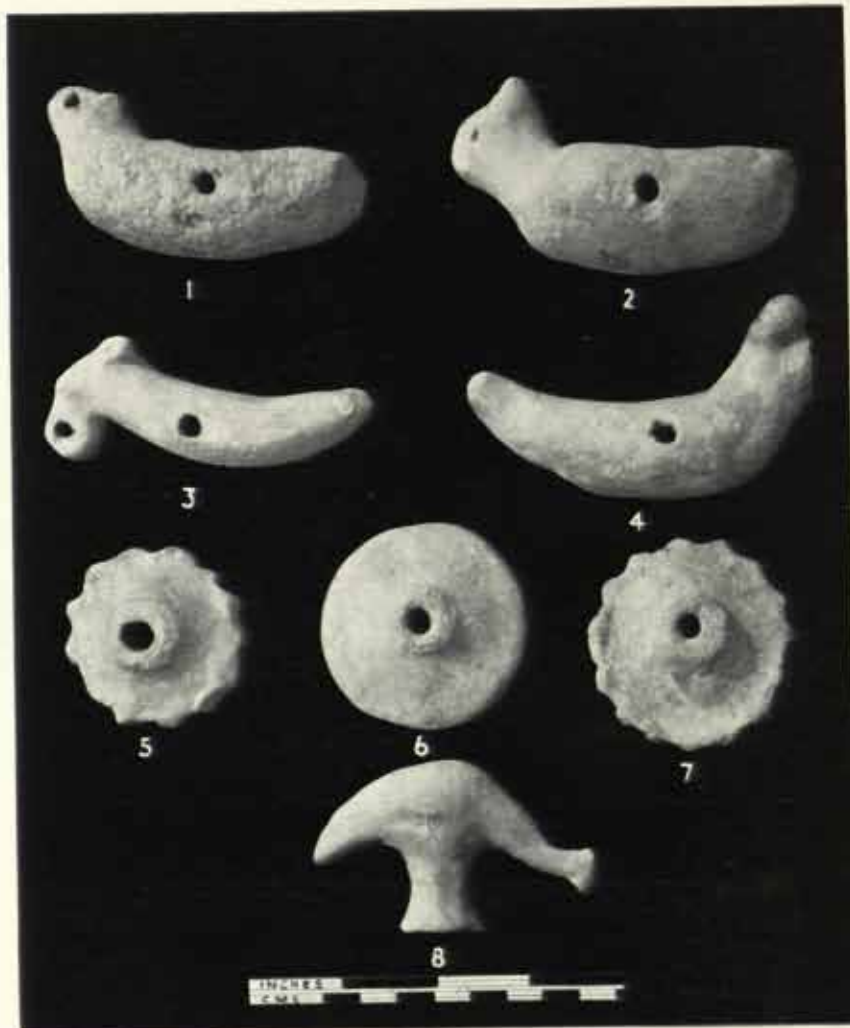
Terracotta figurines. Scale of A, $\frac{1}{2}$. See p. 113



Terracotta figurines. See p. 113



Pottery handles. $\frac{1}{4}$. See p. 113



Terracotta objects. See p. 114

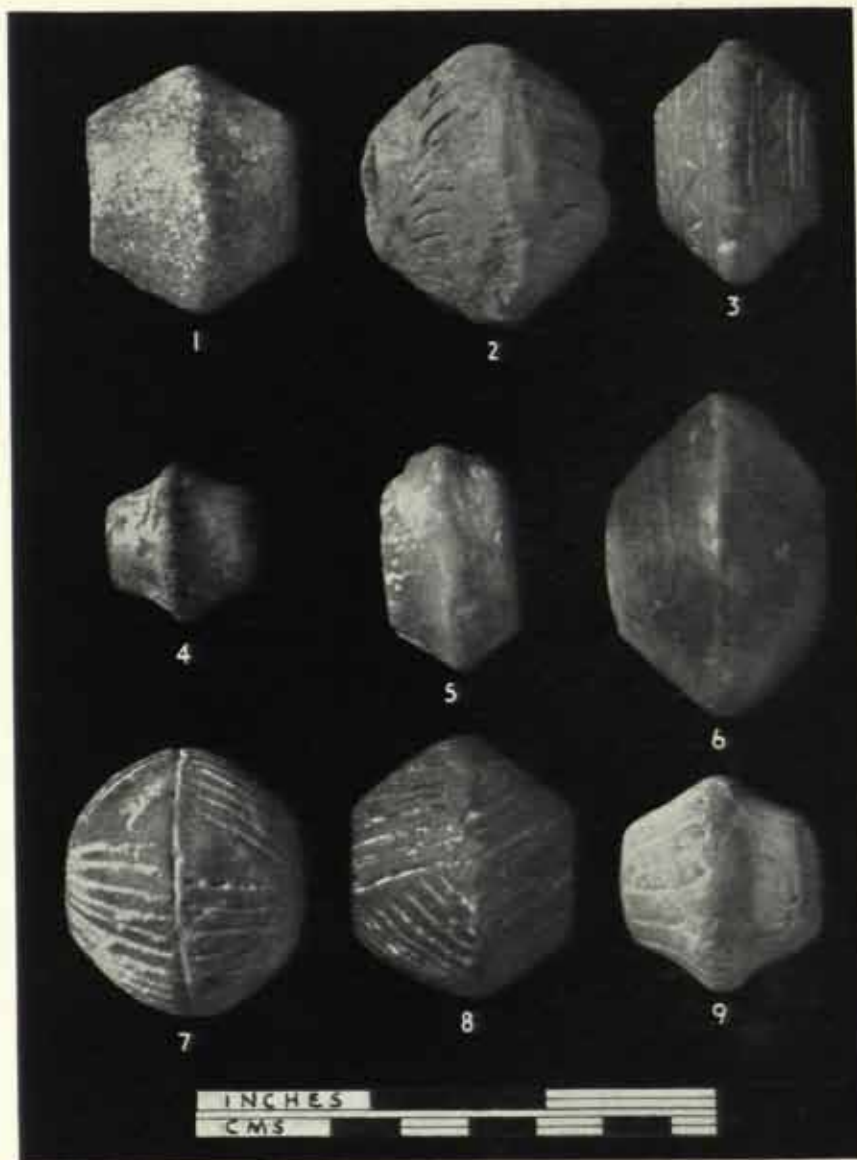


A

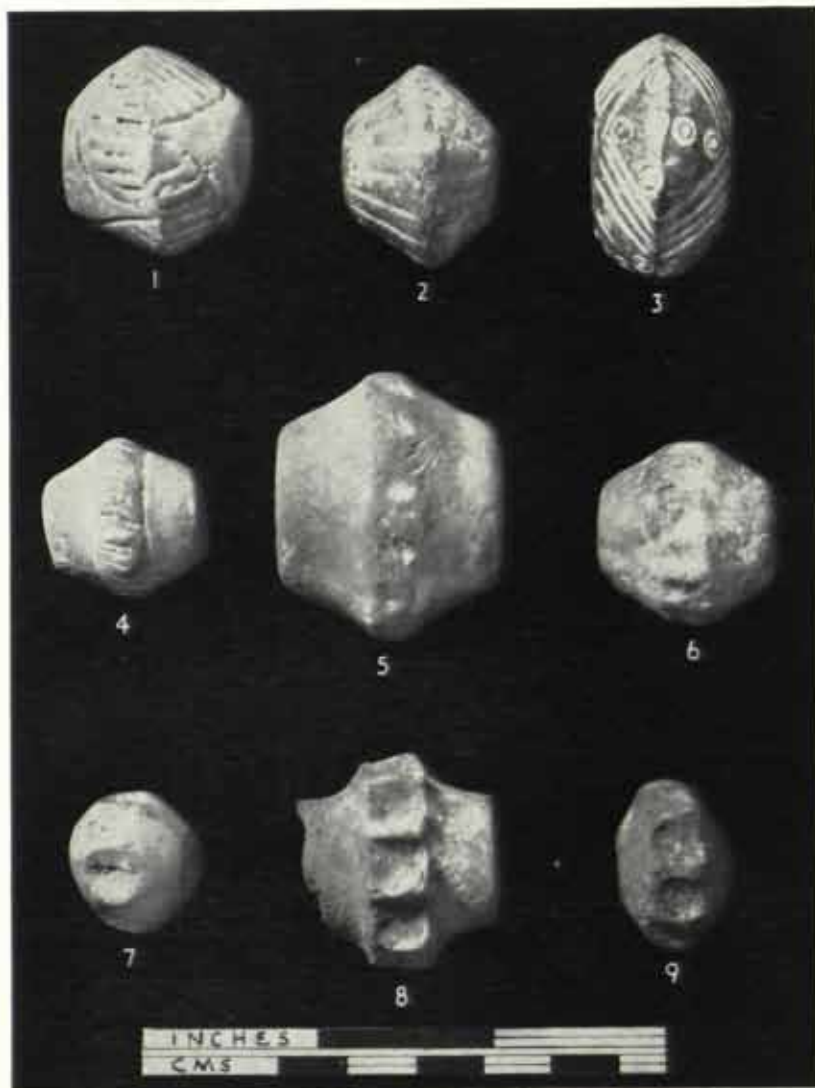


B

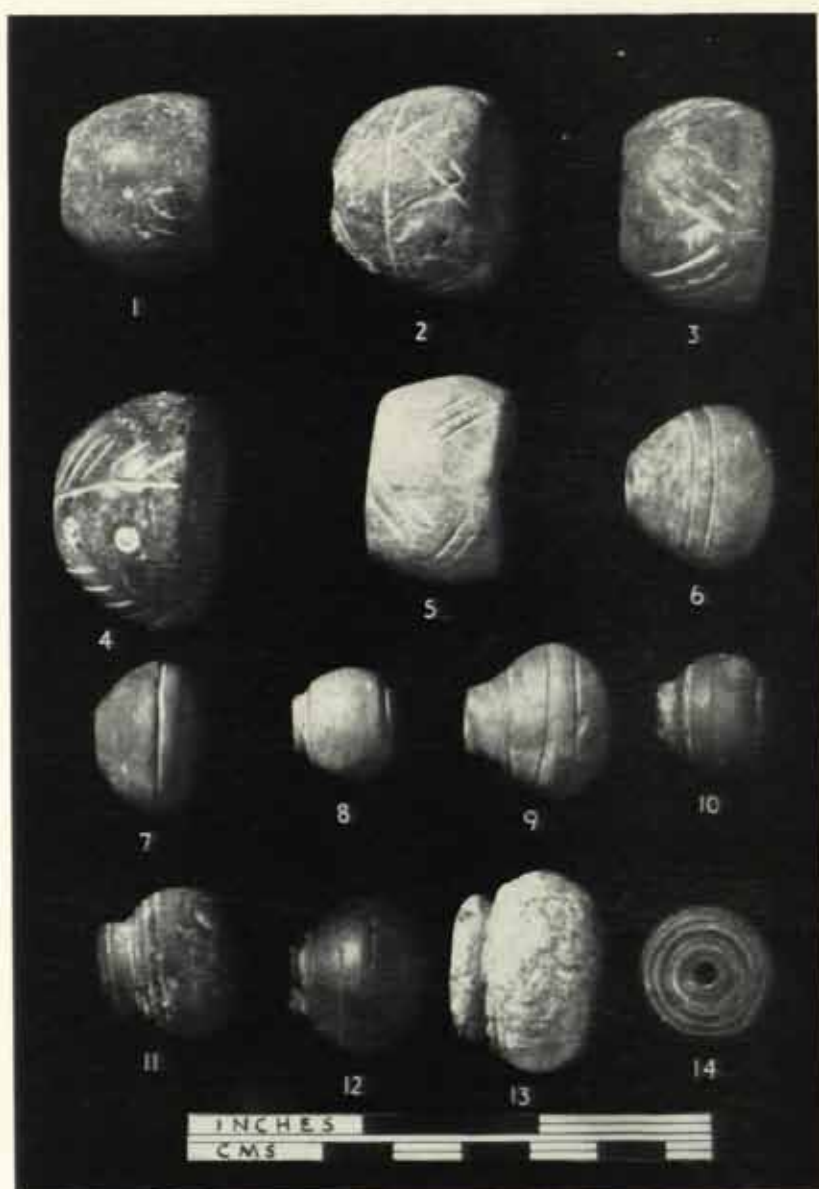
X A, miscellaneous terracotta objects. B, sherd from the base of a jug-handle showing a Herculean head, probably of Alexander the Great. †. See pp. 114, 115



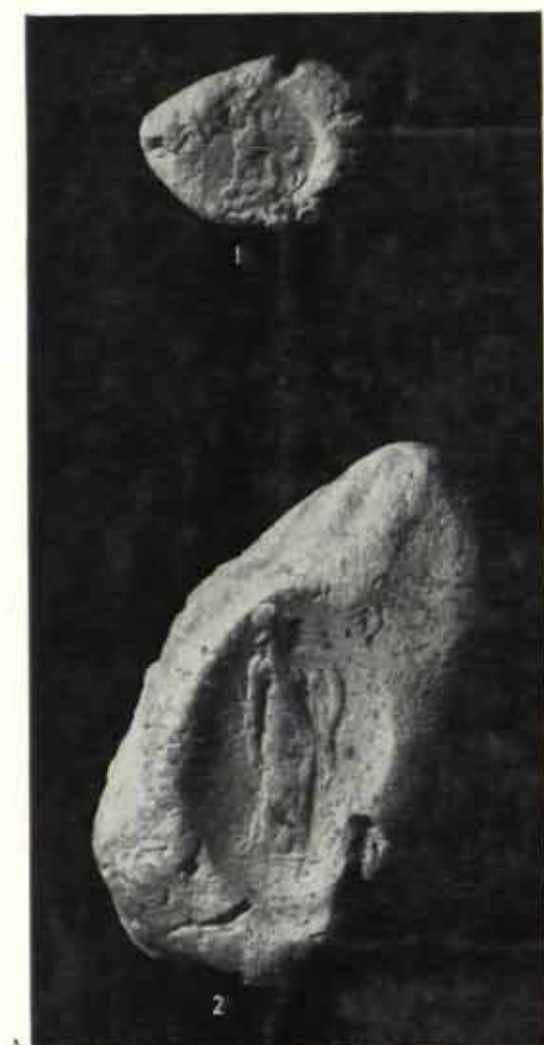
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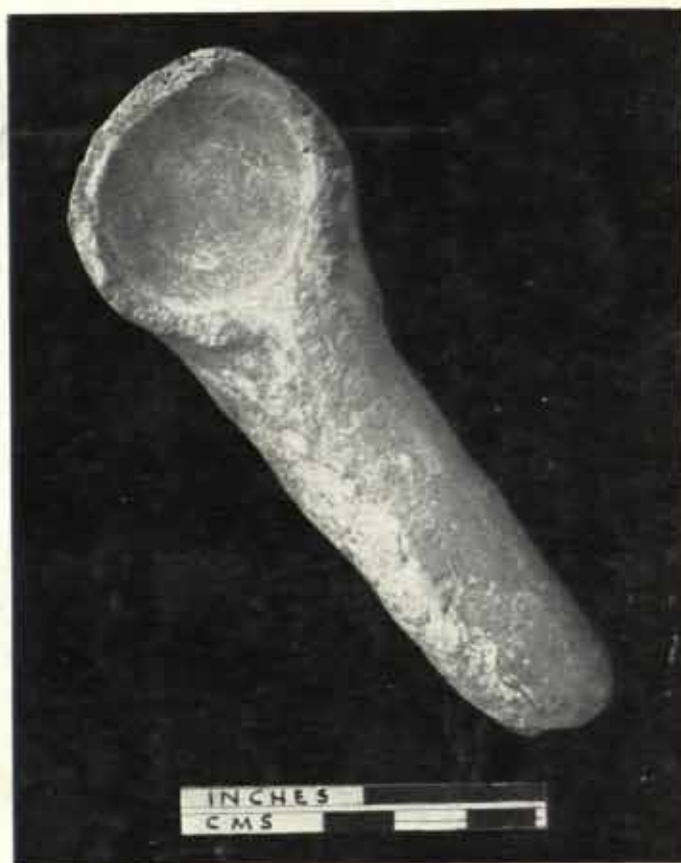
Terracotta and stone beads. See p. 117



Terracotta and stone beads. See p. 117



A



B



C



D

A, clay seal-impressions. $\frac{1}{2}$. (See p. 121). B, terracotta spoon. (See p. 121). C, schist toilet-tray. $\frac{1}{2}$. (See p. 123). D, schist lamp. $\frac{1}{2}$. (See p. 124)



Alabaster statuette of Heracles. 1. See p. 123



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A



B

A, Buddhist worshipper, schist. $\frac{1}{2}$. B, schist column from Buddhist carving. See p. 124



Lamps; 1 of terracotta, 2 of steatite. See p. 124



Graffiti on potsherds. $\frac{1}{2}$ See p. 125



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